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# technology review

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# THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Boston, Mass.

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# The Technology Review

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## CONVENTION A SPLENDID SUCCESS

Chicago as host of Technology Clubs Associated outdoes all traditions—Delegates from every corner of the country meet to hear and cheer President MacLaurin, Department heads and invited guests

When the reunion committee of the Northwestern Association announced that the program of the convention would be "the time of your life" they made no false prophecy.

All convocations of this kind have their delights, but the degree of their success is best judged by the impressions that are left after the noise of the tumult and the shouting has passed. Under this test the Convention of the Technology Clubs Associated, held February 20-21, was the culmination of a long list of reunions. It was full of inspiration and satisfaction for those who attended, and its influence will roll back to the various local alumni centers, adding much to the *esprit de corps* of the alumni body.

From every corner of the country they came to Chicago. Nearly every center of alumni activity from coast to coast was represented at the convention. Boston sent a carload, and New York sent a partly filled car which was augmented by a number of excursionists between Albany and Rochester. They came from the South and from the North; and from whatever point of the compass they hailed, they brought with them enthusiasm, and good tidings from the men who were unable to accompany them.

The preparations for entertainment were characterized by the whole-souled hospitality that attaches to the Technology men of Chicago, and the spirit that was shown at the convention was a re-echo of the early meetings of the Northwestern Association, when the new note in the social life of Technology alumni was first sounded.

The center of activity was the Blackstone Hotel, where all the available rooms were taken by visiting brethren. The various delegations were met at the trains and escorted to the hotel, the largest being the New York and Boston company, which was received by Sturges, Lockett, Ferguson, Shortall, and others of the reception committee, at the La Salle Street Station, and escorted in automobiles to headquarters.

Here, after registration, a delicious lunch was served, giving an early opportunity to fraternize with old comrades and make new acquaintances from among those constantly arriving.

The excursions to various points of interest were attended by nearly all the guests. The places visited were: The Commonwealth Edison Company, excursion in charge of Louis A. Ferguson, '88; the Underwriters Laboratory, excursion



sion in charge of W. H. Merrill, Jr., '89; Stock Yards, excursion in charge of William B. Alright, '78; Sears-Roebuck Company, excursion in charge of Lonsdale Green, '87; Western Electric Company, excursion in charge of Harry L. Grant, '01. These great centers of commercial activity made a strong impression on the minds of the visitors, and revealed the importance of the influence that Tech men are exercising in these lines. Every preparation was made for the comfort of the guests and for proper description of the interesting features of the various plants. At each of them light refreshments were served and guides provided. Much interest was shown in the work of the Underwriters Laboratory, which was in charge of W. H. Merrill, Jr., '89, and where a score or more of Tech men are employed.

In the evening the departmental dinner was served in the great Cathedral Hall of the new University Club. The decorations were by Marshall Field & Company, under the direction of the chairman of the committee in charge, John L. Shortall, '87. The room had been converted into a German garden, the waiters being made up as barmaids. The guests sat at a round table in the center of the room, the departments being seated by themselves at long tables. Each guest wore a Pierrot cap of cardinal crêpe paper with large gray polka dots, and as soon as the caps were donned and the guests were seated, the pent-up enthusiasm of 250 men broke loose, and rents in the immediate vicinity were lowered materially. Every article of decoration and every appurtenance bore Technology colors or Technology symbols. Even the pulp-board coasters for the beer steins bore the seal of the Institute and the date of the reunion.

The great crowd cheered the President, cheered the professors, cheered Harvard, cheered the barmaids, and cheered each other, and when they were tired the male quartette continued the program with popular songs, the guests joining in the choruses. The theme of the dinner was beefsteak and onions with various delectable concomitants before and after. Between the courses there was

music and singing led by the quartette and augmented by the "noise committee." During the evening a number of telegrams were received from individuals and associations. They were brought in by a special attendant of the president—a messenger boy garbed as a freshman with an M. I. T. drill cap and carrying a popgun.

When the coffee stage was reached President King of the Associated Clubs, said on taking the chair—

"The Technology Clubs Associated was brought into being one year ago," said Mr. King, "the idea being that the men out of close touch with the Alumni Association would have an opportunity to get together and show their loyalty to the Institute, and the Technology enthusiasm that exists in their various localities. The success of this idea is well exemplified by the splendid work that you men have already done at this first real meeting of the Technology Clubs Associated." Mr. King spoke of the enthusiasm of the meeting in New York a year ago, and of the brilliant prospects for the future. He said that as vice-president of the Alumni Association he had attended the Council meetings in Boston, and the character and influence of the association as he had seen it in these Council meetings has excited his admiration. He had no idea that the association was such an intensely vital organization. He then introduced the president of the Alumni Association, Jasper Whiting, '89, of Boston.

Mr. Whiting said that he came to bring the greetings of the professors and of the members of the Alumni Association who were unable to be present, and especially the greetings of the Alumni Council. He then described the activities of the Council and enumerated some of its more important recent accomplishments. He likened the Institute, with its government by a corporation and faculty, to a vehicle of which these two functions were two wheels and the Alumni Association a third—not primarily to steer that vehicle but to lighten the load on the other two wheels to make it an easier and more rapid carriage. The Council also stood in the

light of a friend with some knowledge of the difficult problems to be faced, always ready with friendly criticisms, suggestions, and assistance. He said that the Council was now trying to find ways to closer unite the bonds between the alumni and make it a mutual benefit association in the best sense of the word.

Mr. King next introduced Prof. Robert H. Richards, '68, representing the Mining Engineering Department, who referred to the beginnings of the department by saying that J. D. Hague was the first professor of mining engineering who retired and went into the profession of mining in California. The second professor was A. P. Rockwell, who remained until about 1873, when he became fire commissioner of the city of Boston. Professor Richards then smilingly said that they had some difficulty in finding a man good enough for the opening, but finally concluded that he would do to fill the gap. He then related his personal experiences in the early days of the department.

Professor Talbot, '85, of the Department of Chemistry, said that perhaps the most important single thought he could offer in regard to the department was the attempt that is being made in all courses to try to increase effectiveness on the side of teaching for power and not altogether for information. Within the department the aim is to increase the effectiveness of teaching with reference to the development of the research idea. By that he did not wish to convey the suggestion of someone working off in a corner on a perfectly useless thing, but it was intended rather to start the problem idea in the minds of the student. He then took up principally the course in chemical engineering, because of the great importance which it was assuming. He gave great praise to Prof. W. H. Walker, head of the course, and Professor Lewis, '05, his assistant. Chemical engineering is the newest of our professions and the least worked out, and an attempt is being made that involves both engineering and chemistry. With the prospect of better and newer equipment and larger laboratory space, the scope of the

work will gradually develop. The speaker thought that this would eventually mean a laboratory in which important problems could be carried out on a semi-industrial scale, with industrial significance.

Prof. Edward F. Miller, '86, the next speaker, told his hearers of the reorganization of the Mechanical Engineering Department, and how duplication had been removed so that every bit of the



JOHN L. SHORTALL, '87  
Who had charge of the Smoker

work of the student had been made to count. The principal changes cut out much of the shop work and made the time that was used for that purpose more effective. A similar policy was pursued in other features of the course. One of the experiments tried this year was to put the second-year men into the study of scientific journals. He told of the new course in refrigeration; also the course in heating and ventilation, which every man is now required to take. The students in mechanical engineering have

increased 34 per cent in the last two years over the average number in the five preceding years. Professor Miller told about the prospects in the new building, making the statement that the department was now occupying 75,000 square feet, and in the new building it would have 175,000 square feet, which would be put to good use.

Prof. Dugald C. Jackson responded for the Electrical Engineering Department. He spoke briefly of the coöperative agreement with Harvard and said that this would bring to the Institute an addition of three members to the present staff of twenty-three, all these new men being especially distinguished. The department will then have a staff of unusual executive ability and reputation. He also spoke very briefly of the post-graduate instruction and research work and of the new quarters in Cambridge.

The Summer Camp of Civil Engineering was the subject discussed by Prof. C. M. Spofford, '93. He described the beauties of the summer camp at East Machias, Maine, and the great benefits that were accruing to the students through its establishment. The camp is not far from Bar Harbor, and the speaker suggested that Tech men who went to that resort could easily run up to the camp, where they would be particularly welcome.

I. W. Litchfield, '85, was introduced as the new field manager of the Alumni Association, an office recently created. He referred to the new Technology spirit which was sweeping the country and which had done so much for the Institute, and reminded the Chicago men that this new social phase of Technology life was started in Chicago hardly more than a dozen years ago. The Alumni Association has arrived at a very complete stage of organization; its work for and with the Corporation and the Faculty is of highest importance, and it has now begun to give its attention to the public and social development of the alumni. He closed with the hope that, when the dedication occurs, of our new buildings next year, on the occasion of the all-Technology reunion, there may be fifty

alumni associations, one for each year of Technology history.

The nominating committee here brought in its report of new officers, who were unanimously elected. They are: President, J. W. Rollins, '78, Boston; vice-presidents, I. W. Litchfield, '85, Boston; Solomon Sturges, '87, Chicago; F. A. Smythe, '89, Cleveland; Benjamin Hurd, '96, New York; L. K. Yoder, '95, Pittsburgh; F. Dabney, '75, Seattle; associate-secretary, Andrew Fisher, '06, Boston.

It was recommended that the place of meeting for 1915 should be Boston, and in 1916 it was unanimously voted that the meeting be held in Pittsburgh.

J. W. Rollins, '78, the newly elected president of the Technology Clubs Associated, responded briefly in acknowledging the honor conferred upon him. He spoke of the New Technology enthusiasm that was contagious from one end of the country to the other, and that Boston was fully as much alive as any other point in the country. He promised that next year Boston would make the occasion worthy of the Technology Clubs Associated, and of the New Technology which will be dedicated at that time.

Mr. King then introduced President Maclaurin, who said:

I am not used to speaking from quite so high a moral altitude, nor from such a position of unstable equilibrium (laughter), but I shall do the best I can under the circumstances.

I want to say at the outset, before proceeding to anything else, that I hope all you men realize how stimulating a meeting like this is to the President and to the Faculty of the good old M. I. T. We have, at meetings like this, as we have in no other way, a vivid impression of the vitality of Technology, because we see face to face live men, and realize that each is doing a man's work in a man's way.

Your president has said that I am to speak to you about the New Technology. I might talk to you about that for hours, but there is one other thing that I want to speak about, and as I have to speak of two things, I must be brief with both. That one other thing is the recent alliance between Technology and Harvard. It is a thing of great importance, not only to the Institute and to Harvard, but in my judgment and in the judgment of impartial men, better able to judge than I as to its real significance, something as great, if not greater, than anything that has happened in the field of education in recent times.

Mr. Theodore Vail, president of the Telephone Company and one of the broadest-gauged men in this country, has given it as his deliberate opinion,

and he knows all about the agreement, that it is the greatest thing that has happened in his day in educational circles in this country. Why has he used such language? Mainly, I think, for two reasons: he has appreciated, as I hope you appreciate, that this agreement is significant of a large movement. It is the beginning of a great policy which may be followed, and doubtless will be followed by other educational institutions, a policy of coöperation—a policy whereby everything else will be set aside if it be possible in any way to do something better for the good of the community.

But I have not time to set forth all the significance of this agreement. Those of you who read your *TECHNOLOGY REVIEW*, as I hope you all do, will find the agreement set forth *in extenso* there. It covers only a page or so in this little book and I would suggest that all who are really interested, read, mark, learn and inwardly digest that simple document. If you have time to do more than study the agreement, possibly you will turn to an address which I made in Boston to the Alumni Council, and which is set forth here in this *REVIEW*.

As to the agreement itself, one thing that has gratified me more than anything else with reference to it has been the way in which it has been received, not only by the community of Boston and its neighborhood, but particularly by that group of men that follows Institute affairs far more critically and far more closely than any other—the alumni. I have heard little by way of adverse criticism from alumni anywhere. I have received many tokens of appreciation, and resolutions from alumni associations all over the country expressing their hearty approval. The latest of those resolutions has come to me since I sat down to this dinner tonight. I will read it:

"Forty-five members of the Tech Club of New Hampshire heartily endorse the policy of coöperation of Harvard and Technology in the Engineering Department." (Applause.)

That, I say, is typical of what is being done by alumni associations all over the country. I am not surprised at that because long before this agreement ever saw the light of day in any public way, it was presented to certain members of the alumni who, it seemed to me, ought to be consulted about such matters. It was presented in the first place to the five past presidents of the Alumni Association and, before any serious steps were taken by us, before the matter was laid even before the Corporation of the Institute, it received the hearty endorsement of those five persons. It was also explained to the Alumni Council which, at a large meeting in Boston, passed a unanimous vote approving it. And, as I stated already it has met since its passing with hearty endorsement from all over the land.

Now, what is this agreement? If you want to know it in detail study this book, but in substance it is the simplest thing imaginable. Here you have in Boston two schools of engineering: Technology that you know all about, and Harvard that you may occasionally have heard of. (Laughter.) The Harvard school has worked in various ways, first as a scientific school for half a century or more, and for the last few years as a graduate school of engineering. It was news to some people, although it is not news to you, that Technology had had a graduate

school of engineering long before Harvard apparently ever thought of it, and that for almost a generation Technology had had not only a graduate school of engineering, but by far the largest graduate school of engineering in this country, as great a graduate school, in fact, as the graduate schools of all the leading institutions of learning in this country put together.

So there was nothing in the graduate idea that radically distinguished the school at Harvard from the school of Technology; and those of us who were in a position to watch the methods of instruction and the ideals that were pursued in the two institutions, could see that there was nothing radically different in the two, and that, from all points of view, it appeared that great gain would come about by their consolidation, or at least by some kind of coöperation.

To bring together two such schools under the circumstances which you know so well, in view of the past relations between these two institutions, was not an easy matter. It would have been absolutely impossible, had it not been that Harvard is fortunate in being governed today by men of the broadest spirit, who, once they had made up their minds that coöperation in this field was the proper thing to do, practically said, "Here you are, gentlemen. Suggest anything you like, anything that is at all reasonable, and that is consistent with our trusts and we will accept it."

All kinds of coöperation might have been carried out between these institutions in all kinds of ways. It was suggested, not by Harvard, but by some of our own men, that there should be some agreement whereby Harvard should concentrate its efforts on certain branches of engineering, and Technology should concentrate its efforts on certain other branches of engineering. I always took the position that coöperation of that kind was entirely out of the question, and that there was nothing else to be done that was worthy of serious consideration, other than a real consolidation of effort.

Finally, after the matter was discussed carefully between myself and my colleagues on the Executive Committee, and the Corporation of Harvard, it was agreed unanimously that for the good of both institutions and for the immense advantage to the country in general, that these two schools of engineering should be combined under the executive control of the Institute of Technology. (Applause.)

That, of course, is the main thing. Harvard agrees to carry on all the work in engineering that it will ever afterwards do in our buildings, under our executive control. What more could we ask? Practically everything is entrusted to our care.

If Technology were to refuse to enter into such an agreement it could only be actuated by some narrow-minded policy that ought not to be seriously considered by broad-minded men. I am not going to discuss the details of this agreement, it is all here, easily accessible, easily understood, but I do want to quote you the opinion of a man—I have quoted it elsewhere but I am going to quote it again—the opinion of a man who is absolutely impartial with regard to this agreement, because he is neither a Harvard man nor a Technology man, a man whom we all look to with respect, the greatest benefactor in a monetary way at least, that Technology has



ever had, Mr. Smith. (Laughter and applause.) His words when this agreement was explained, were in effect as follows: "That is surely the greatest compliment ever paid to an institution of learning. It is a carefully considered expression on the part of Harvard, the oldest and the most famous university in the country, and one singularly well placed to know all that can be known about Technology, that it has absolute confidence in that institution and in its powers to do the best that can possibly be done in the field of engineering. If Technology men do not appreciate that compliment they will disappoint me."

President Maclaurin then explained briefly the details of various stereopticon slides containing views of the grounds and buildings of the New Technology.

The meeting adjourned at 10.30 o'clock p. m.

#### THE TRIP TO GARY

Saturday's program began with a trip to Gary, Ind. The special train provided for the Technology party, left the La Salle Street Station at 9.30 a. m., carrying over 200 guests. After a ride of twenty minutes or half an hour, the passengers detrained at Gary, and took possession of the special observation train provided by the works management, as it would be impossible to see the plant in any other way. This train shuttled in and out through the various buildings, and scattered through the crowd were men connected with the works—many of whom were Tech men, by the way—who explained the various features of the great plant.

The excursion was a most interesting and instructive one; but perhaps its most important service was making the men better acquainted with each other; for at every turn new groups were formed and new acquaintances were made, so that on the return trip the men were very thoroughly acquainted.

The train taking the party back to Chicago was enlarged by the addition of two baggage cars, each containing a long refectory counter loaded with sandwiches, salads, coffee, etc., which was appreciated fully as much as the more elaborate dinners that preceded and followed.

The entire excursion, including transportation and the delicious luncheons en route, was provided by Theodore W.

Robinson, '84, vice-president of the Illinois Steel Company.

#### THE BANQUET

In the afternoon there was a tango tea in the Blackstone ball room for members and guests, which was largely attended, and then came the grand banquet in the evening. This was held in the beautiful banquet hall of the Blackstone, which was strikingly decorated with Institute colors and symbols under the direction of Louis A. Ferguson, '88, whose touch was to be seen everywhere throughout the banquet.

There were about 250 men seated at round tables, by classes, the oldest class, '68, being represented by Prof. R. H. Richards and Col. Andrew H. Russell of Plymouth, who had come a long distance to be present.

Those sitting at the head table, beginning at the left, were Edward M. Hagar, '93; J. W. Rollins, '78, president of the Technology Clubs Associated; Prof. S. C. Prescott, '94, representing the Department of Sanitary Biology and Public Health; R. E. Schmidt, '87; Prof. H. P. Talbot, '85, representing the Department of Chemistry; John L. Shortall, '87; Prof. D. C. Jackson, representing the Electrical Engineering Department; F. K. Copeland, '76; Prof. Dana P. Bartlett, '86, representing the Department of Mathematics; Jasper Whiting, '89, president of the Alumni Association; A. W. Harris, president of the Northwestern University; President William E. Stone, of Purdue University, Lafayette, Indiana; Solomon Sturges, '87, president of the Northwestern Association; President Maclaurin of the Institute; later in the evening, President Lawrence Lowell, of Harvard; Theodore Robinson, '84, toastmaster; Dr. David Kinley, vice-president of the University of Illinois; Dr. Judson, president of the University of Chicago; William H. King, '94, former president of the Technology Clubs Associated; Prof. R. H. Richards, '68, representing the Department of Mining Engineering; S. M. Felton, '73; Prof. Edwin F. Miller, '86, representing the Department of Mechanical Engineering; I. W. Litchfield, '85, field

manager of the Alumni Association; Prof. C. M. Spofford, '94, representing the Department of Civil Engineering, and Louis A. Ferguson, '88, chairman of the banquet committee.

The menu cards were especially beautiful, the inscription on the cover being a steel plate engraving surmounted by a medallion of the Institute seal in gold, the leaves being bound together with cardinal and gray ribbons. For incidental divertisement at the banquet the committee had provided a quartette of Italian mandolin players in bizarre uniform, who sang very acceptably, as was evinced by the encore of the guests. After making their second appearance, Tech men, not to be outdone by heathen countries, furnished a voluntary quartette composed of the pride and flower of four of the principal cities of the United States—one of which was Indianapolis—and with costumes most effectively improvised, the quartette made a triumphant tour of the dining room. All through the dinner Tech songs were sung, and the cheering was copious and lusty.

The speakers were President MacLaurin, President Lowell of Harvard, President W. E. Stone of Purdue University, and Dr. David Kinley, vice-president of the University of Illinois. Theodore W. Robinson, '84, who introduced the speakers, made an unusually brilliant toastmaster, and his sallies of epigram and wit fell upon appreciative ears. The speeches were of unusual interest and we print them *verbatim*.

**TOASTMASTER ROBINSON:**—Within the lives of many who are here present Technology existed but as a dream, as a vision in the far seeing mind of William Barton Rogers. (Applause.) Technology, a short generation ago, was born in philanthropy and it has ever since been dedicated to public service. Its ideals have ever been progress; its accomplishments have been by opposition overcome. That was the old Technology.

We are facing tonight, with work having been started upon our new buildings and with the agreement with Harvard an accomplished fact, the New Technology. But let us remember, gentlemen, that the old Technology in her ideals, in her initiative, in her methods was always new; and we can hope for no better things for the New Technology than that she may ever remain old in her traditions of the past. (Applause.) I can conceive of no better motto to inscribe upon our new buildings than those

words of Tennyson; "To strive, to seek, to find; but not to yield." (Applause.)

And now, gentlemen, I want to say a word as to the man who has done so much to make the New Technology possible. Five years ago it came to us that there was a man who, having encompassed the erudition of two continents, was seeking for new worlds to conquer. He was a scholar of the world. As an authority on the theory of light we knew that he had an illuminating vision; by his treatise on the titles to realty, we knew that he knew a site when he saw it. (Laughter and applause.) In the short



LOUIS A. FERGUSON, '88  
Who engineered the Banquet

time that he has been with us he has demonstrated that he is a past master in administration. As a matter of research he has dug up Mr. Smith (laughter and applause), and as regards his discretion we all know what that means by the publicity that he has given to the identity of Mr. Smith. (Renewed laughter.)

And now, with all these accomplishments, he has crowned his acts with that all important agreement, that coöperative arrangement between Harvard and Technology. Technology has had able men at her head, but no man has been more able than the man we love and honor and respect, the man who five short years ago came, saw and conquered, Dr. MacLaurin. (Prolonged applause.)

**RICHARD C. MACLAURIN**, President Massachusetts Institute of Technology: After such introduction it is somewhat difficult to speak quite

without emotion. And I want you to understand that I am sincerely appreciative of the good things that you Technology men and other Technology men say about what I have done in the last five years. It is a work inspiring to have had a hand in, and it could not have been done without the support and coöperation of a vast army of loyal alumni.

When I came here tonight I was told that I should deal with some broad topic of education, but when I looked at the list of speakers who were to follow me, it seemed that it would be inappropriate for me to say anything about the broad fields of education, because they could be better entrusted to the hands of those who are to speak immediately after me. I thought, therefore, on this occasion that I might perhaps be permitted to say something about Technology itself. It has certain broad aspects, which broadly affect the whole industrial and educational life of this great country. So I feel in speaking of Technology, that I am really dealing with a large subject, not unworthy of the serious attention of serious men, whether they be Technology men or not.

But when I come to think about what I am to say concerning Technology, I admit I am in a difficulty. It would be usual under such circumstances to speak of what has happened in Technology since last I had the pleasure of meeting here such a company as this, but, were I to attempt that task I should be face to face with the difficulty of having to tell you a well-told tale. You already know the things that have been done, and there is little that I can say to add to your understanding of them.

Further than that, I am faced with the difficulty that in such a meeting as this, under the auspices of the Northwestern Association, there is inevitably induced in me a spirit of hopefulness, and hope will never look backward, but always looks ahead. And so I am constrained rather to peer into the future, and in the short time at my disposal to tell you something of what I see of the Technology that is to be.

Naturally in speaking of that I will confine my attention to the Technology of the future as it is affected by the doings of recent years. There are two great things in the recent history of Technology that have already been referred to—the alliance with Harvard and the building of what we call the New Technology.

As to the alliance with Harvard there is not much that I need say. The agreement itself you can read and understand. What its bearing on the future of Technology is to be time will show. But the obvious thing which must impress anybody when he thinks of the broad results of that agreement between two great institutions is the wonderful opportunity that it will present to the student of the future to have open to him the great resources, not only of the premier university of this country, but of the oldest or the leading technological institution. To open the resources of both these institutions to students must be a powerful magnet drawing men from all parts of the country, and in fact from all parts of the world; men of promise, men of ability, and it is, of course, by the attraction of such students that any institution of learning becomes great.

As to the effect of this alliance on the internal policy of the Institute, that seems to me a simple matter. I cannot see that it will produce any great change, any obvious change, either in the ideals of the Institute, in its plan of education, or in its methods of instruction. It will not in my judgment produce any change in the ideals of the Institute for the simple and important reason that the ideals of Technology and Harvard are in all fundamental matters the same.

What are those ideals? They are simply, gentlemen, the great ideals of thoroughness and breadth. The great charter of the Institute was set forth in clear language, in simple terms, in the little publication which every Technology man ought to read, the "Object and Plans," written by President Rogers. In that little work President Rogers laid great stress on this Institute as an institution devoted to useful and practical knowledge. But he took it upon himself to emphasize what in his judgment was useful and practical knowledge. This is what he says:

"We believe that the most truly practical education is one which unites with the habits of close observation and sound reasoning a large, general cultivation." And in the judgment of all serious students of Technology's history, the fact that Technology has always striven to live up to that great ideal is one of the main secrets of its success. So you know, and other men who have watched the Institute know, that the study of literature, of history, of economics, of languages and the broad principles of science enter largely into its curricula, just as largely, indeed, as time permits. That, I say, is one secret of Technology's success and that explains why, for many a day, Technology men have been able to hold their own and hold their own easily with the graduates of other institutions who have worked in their midst.

It is known to you, although it is not known to everybody, that for more than a generation Technology has been not only a graduate school of engineering, but by far the largest graduate school of engineering in this country. It has more than twice as many graduates of colleges in its school of engineering as any other school of engineering in this country.

Technology will not give up in the future its policy of catering particularly to the graduates of the high schools of the country. Nor will it give up in the future its policy of catering to the graduates of the colleges of the country. One great advantage of this alliance with Harvard will be that it will enable it more effectively to cater to both these classes of students. There will be a larger staff, a more varied staff, and more opportunity of meeting the needs of different kinds of students. But, as far as I see it, the great result of this alliance with Harvard will be that it will make possible the provision for something that is not being done adequately anywhere in this country, the provision for more advanced study and research in the field of engineering.

As I see it, the Technology of the future will draw to it graduates of the Institute itself and graduates of other engineering colleges from all parts of the country, who will find in this great center a wonderful equipment of men, and of machinery, and who



will find there an invigorating atmosphere of hard work. With this equipment and in this atmosphere, as I see it, they will carry on all kinds of investigations and researches for the benefit of manufacturers, of municipalities, and of private citizens; and a great engine will be kept at a high state of efficiency for the advancement of science that is applicable to the service of man.

In such an institution it will be an enormous advantage to have all these kinds of work appealing to various kinds of students in various ways going on at the same time in the same buildings and under the guidance and inspiration of the same men. Each will contribute something to the inspiration of the other, and you will find there an atmosphere conducive to the health and well-being of brilliant students and brilliant educators, so that there will be built up in due time something unparalleled in this country, in its influence for good on the commercial and industrial life of this nation.

That is something worth doing, not only for Technology or Harvard, but for the community as a whole, and you and I ought to be proud in having had any hand in making it possible.

That, I say, is the great broad result of this alliance with Harvard; it will broaden our opportunities and enable us to serve the country better than we could otherwise have done.

Time is flying quickly and I must say a word or two about the influence of this New Technology that we speak of. What will be the effect of building up on the borders of the Charles an institution such as I attempted to describe to some of you last night by means of pictures. Some things are very obvious, that it will be a very great advantage to the alumni of the future to have lived and worked in laboratories and class-rooms that are well planned and well equipped for their purposes. Almost equally obvious, however, but something that I may say a word or two about, will be the subsidiary advantages. I am thinking particularly now of the advantage to the engineer and architect of the future to have spent some of the formative years of his life on a magnificent site, looking out as he will on a majestic river, beautiful alike in its constancy and in its subtle variety, and surrounded, as he will be, by noble buildings that are classic in their simplicity and in their dignity.

Do not think, gentlemen, that this is mere sentiment. It has been put to the hard test of experience in many a land, and nowhere, I think more effectively although here perhaps I speak with prejudice—nowhere, as I judge it, more effectively than in the old colleges of England, from which has proceeded so much that is great in the practical and intellectual achievements of the race. I think that you will find many a hard-headed Oxford or Cambridge man doing great things in the world and not much given to sentiment, who will tell you seriously that one of the great formative influences of his life was what he derived from the silent effect of college halls, and college groves and the atmosphere that surrounds those places. These things mean much in building, as President Rogers said we ought to build, on the basis of a broad general cultivation.

But, after all, the greatest influence in the moral education of a man is the influence that comes to

him from mixing with his fellows. Facilities for this will be enormously increased in the New Technology by the building up of dormitories, the Walker Memorial, the gymnasium and athletic field next at hand. To fulfil Rogers' great ideal we must have a sane athletic system, for we must turn out men with real red blood in their veins. For such an object we must have a sane social life, because it will make our students better men, and, therefore, make them better engineers and better architects. (Applause.) More and more these professions will call for the all round men, the well rounded men. More and more they will call for that as the professions themselves broaden and as the men that practice those professions take a more effective part in the public life of the community. I see proceeding from the Technology of the future a vast army of vigorous young men, sound of body, strong of mind, able to play their part manfully and effectively anywhere in the world. As in the past, gentlemen, these young men will have been inured to hard work, the best thing about Technology now and always. In the future as in the past, they will have had the best professional training that could be given to them. They will, however, have many advantages that were denied to their predecessors, and the consequence of that will be, as I see it, that there will go forth from Technology in the future a larger number of men who are broad enough and effective enough to take a leading part in shaping the destinies of this great nation, a larger number of men who will rise to the high level of the very best men Technology has turned out in the past.

Think just for a moment, gentlemen, of what these men have achieved, not only for themselves, not merely for Technology, but for the country as a whole; and then try and realize what a splendid thing it is for all of us, for you and for me, to have a hand in laying the foundations as we are now laying them, for the greater Technology of the future. (Prolonged applause.)

(At this point President Maclaurin accepted from the hands of a committee, led by Judge George A. Carpenter, of the United States District Court, Chicago, a magnificent bouquet of American Beauty roses, presented by the Harvard Club of Chicago.)

PRESIDENT MACLAURIN: Gentlemen, this tribute comes to you with the compliments of the Harvard Club of Chicago.

(President Maclaurin's announcement was greeted with the M. I. T. cheer with three Harvards.)

JUDGE GEORGE A. CARPENTER: Your worthy President has said something about a greater Technology. I come to you to give a conception of what we regard as the greater Harvard. (Applause.)

He said in passing that the change would not be obvious. Of course it would not to you or to the Harvard man, but we all know that the combination of the ideals of your institution and of Harvard will constitute an irresistible force for good that will make possible even better things than either institution has wrought in the past.

We have come here to take the bride, or the bridegroom, as the case may be, to the altar. I do

not care which it is; we are going to take him or her with us and we are going to send President Lowell back in exchange. (Prolonged applause.)

(The Committee of the Harvard Club then retired, taking with them President MacLaurin to address the Harvard Club banquet at University Club.)

TOASTMASTER ROBINSON: Gentlemen, having lost the bridegroom (laughter and applause), and while we are waiting for the bride (renewed laughter), or as Judge Carpenter said, *vice versa*, it will be our privilege to hear from one of our other honored guests.

Illinois is always interested in the development of her neighboring states. We have been especially interested in the development of Indiana. Indiana is prolific in many things. Indiana has contributed much in the way of statecraft. There have been presidents and vice-presidents, and commissions and vice-commissions. (Laughter.) Again, as you know, Indiana has carved her name in the halls of fame through the genius of many of her sons in belle-lettres. (Laughter.)

But it is not so much in literature, and it is not so much in statecraft that we are interested. Underlying all and deeper certainly than either, is the art of education.

We have with us tonight a man who guides the destiny of one of our most important western educational institutions. He is not only an able educator, but he is an expert chemist. Whether or not he can give you the chemical symbol for sulpho benzene, arzo dy methel analine, I know not; but he has clearly discovered those human elements that he synthetically coordinates into superior men at Purdue University. I take great pleasure in introducing Dr. Stone.

#### PRESIDENT STONE OF PURDUE

WINTHROP E. STONE, President Purdue University: We who dwell here upon the western prairies are accustomed to look to the East for the first signs of approaching day. And, indeed, from that source has come, as you well know, the dawn and the inspiration of many successful western enterprises; but in no respect is that truer than with regard to education, and particularly technological education.

The Massachusetts Institute of Technology has become the mother of a host of splendid technical graduates who have gone out through the length, and the breadth of this land to do credit to their alma mater and to do service to their country. (Applause.) But, more than this, the Massachusetts Institute of Technology has been the source to which every engineering school in this country has at one time or another turned to draw teachers, or methods, or inspiration. (Renewed applause.)

Technology has blazed a trail into the unknown and by her commanding success in her work she has exerted a profound influence, both upon the theory and the practice of engineering. And in so doing, mark you, she has contributed greatly toward dispelling the earlier prejudice which existed against technical education. And, in so doing, has won for technical education the respect and the

confidence of the public as well as educational circles.

The strongest evidence of this lies in this recent important event, when the oldest and greatest university in the country wedded this young and vigorous exponent of technological education. That event is of more than local interest; it concerns far more than the two institutions involved. It serves notice upon the world that Technology is to be upon the same plane as the arts and the sciences, as a proper subject for study and research, as worthy of rich endowment, of permanent establishment and of world-wide recognition. (Applause.)

Our American colleges are just now the target of criticism on account, it is said, of their inefficiency, of their waste of time and of men, and especially because of the predominating influence among their students of the innumerable activities and diversions which take possession of the student bodies, opposed to serious purpose and scholarship. There is a feeling, and unfortunately it is true, that the ideals and the purposes of our higher institutions of learning are minimized, or even defeated by the domination of these so-called student activities and distractions. Going to college is no more regarded as the solemn dedication of youth and the serious preparation for life work, but somewhat more as a kind of social diversion, an experience, an episode in which athletics and fraternal activities and social diversions occupy a larger place in the mind and in the purpose and in the loyalty of the students than do the curricula; and in which the "gentleman's grade" represents the maximum conception of the student toward the purposes of his institution.

How to stem this tide which threatens to overwhelm the serious purpose and the ideals of higher institutions of learning is a problem which puzzles even the most wise leaders of education in so far as they have not altogether succumbed to the pressure from the public and the student body for less work and more play.

It is a matter of common knowledge, I take it, that the schools of technology have felt this influence, or let me say have yielded to it less than have the schools of liberal arts. Perhaps it is that spirit of concrete purpose which exists in the schools of technology which has found some reflection in the life and attitude of their students. Growing out of the exactions of the engineering curriculum and out of the realization of the purpose of these institutions, they have come to be characterized as places for hard work, and by an atmosphere in which the extraneous crops of college life have not flourished. The average college idler finds no congenial associations in schools of technology. The student of technology is apt to be a fellow of serious purpose and an earnest seeker after knowledge. His counterpart is found not among the undergraduates of the universities but among the students of professional schools. Athletics, fraternities and social diversions are incidental in his program and not the main show.

Therefore, I think it may be fairly said that the tendencies toward idleness and extravagance which constitute the basis of criticism of American colleges do not exist, or exist in a lesser degree in our technical schools, than they do in the higher institutions

of other kinds. There seems to be in the technical school a fairly successful effort to maintain standards of work and scholarship which are fairly consistent with the purposes of these institutions. From the very nature of their work, the schools of technology can accept nothing from their students but thorough, good hard work, and the students on their part, as it has been my privilege to observe them, do not need a spur toward better performance. Their sense of responsibility, their realization of the hard tasks that await them, and their concrete interest in the work of the day, are for the most part sufficient to keep them well up to the mark.

The position of institutions like the Massachusetts Institute of Technology, which devote themselves exclusively to instruction in technological subjects, is particularly strong in this respect. Less fortunate are those institutions where departments of technology touch elbows with other departments of less strenuous requirements and where their students mingle on equal terms, as is the case in many of our great state institutions. There the demoralizing or disintegrating tendencies of college life, and may I say it, the effeminizing influence of coeducation, is not to the benefit of the students of technology.

As I see it, a problem of higher education in this country is to secure concentration and application and performance from our undergraduate students as over against these trifling tendencies to merely have a good time and more fun while in college. Our American youth cannot be trusted because of their preliminary training and their environment, with unlimited freedom in the choice of studies or unrestricted liberty as regards their attention and their application to their work. Someone has said there ought to be two kinds of colleges; one for the youth who wishes to study, and one for the fellow who merely wants a good time. (Laughter.) Do we not have in effect that distinction in a degree? Are not the colleges of liberal arts, generally speaking, if you please, characterized by the presence within them of these influences to which I have referred; and are not the schools of technology characterized on their part by a class of students who desire and who do work hard and successfully? There are exceptions, of course, to those characteristics, but I believe in the main they are true.

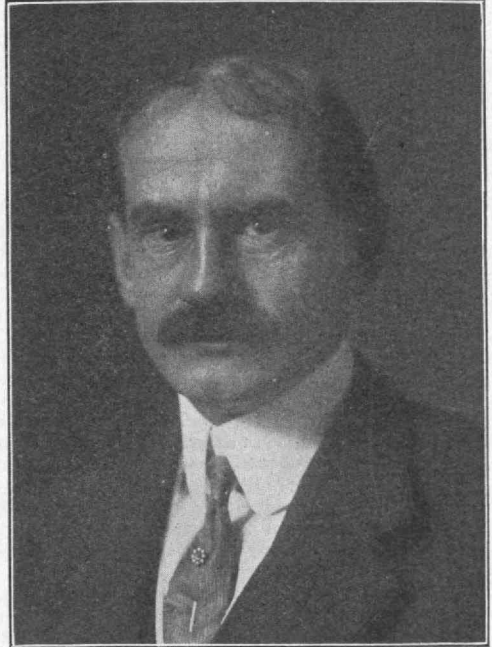
But on the other hand, I regard it as a danger to the integrity of the instruction in schools of technology that these notions as to the importance and the value of the variety and a great number of diversions as a part of college life shall find establishment in the minds of their students, and I believe that the only safety for the integrity of our schools of technology is on the part of their authorities a conscientious and constant resistance to those tendencies.

In this conflict, and I assure you that it is a conflict, the Massachusetts Institute of Technology has a great responsibility, commensurate with her commanding position. In her new organization the Institute has no favors to ask, no apologies to make. Richly endowed, magnificently housed, linked, if you please, with the best and the greatest, and directed by a leader of poise and firmness and wisdom, the Institute is in a position to expect and to achieve high ideals in undergraduate work.

We, who strive to attain these ideals under some-

what less favorable conditions, look, as I say, to the East for the signs of approaching dawn. With no reflection upon institutions of other kinds, I believe that the confidence and the support given to schools of technology arises from a faith in the methods and the training of these schools. And, I am equally convinced that the criticism directed against our American colleges will be dispelled quickly when they succeed in reestablishing among their students a spirit of consistent scholastic performance.

The New Institute of Technology has a significance and an influence which reaches far beyond the



THEODORE W. ROBINSON, '84  
Toastmaster

bounds of classic Cambridge. It extends to all other schools of like kind, and to all other schools of every kind.

Technology shall raise a new standard which shall serve to the educational world as an inspiration and as an example and as a notification that study and hard work, and attention to business are the essential factors in the preparation of young men for their life's work. (Applause.)

(Just as President Stone finished his speech F. K. Copeland, '76, and Louis A. Ferguson, '88, returned from the University Club, where the Associated Harvard Clubs were having a banquet, with President Lawrence A. Lowell of the University. As President Lowell entered the room all rose and gave the long cheer with three Harvards, and then all joined in singing "Fair Harvard.")

TOASTMASTER ROBINSON: We are honored to-

nigh by the presence of President Lowell. It is a great privilege to extend our greeting to him as President of Harvard University. It is a greater privilege to extend to him as a man and an old-time friend of Technology, our most cordial welcome.

We are reminded that forty-five years ago Technology cast its broad net on the waters but over the waters, when, as a young man, President Emeritus of Harvard left our gates to cross the River Charles to his own glory and to the glory of Harvard and Technology. The friendship of long standing between these institutions has now been cemented into closer ties by the cooperative agreement. It is an act that spells "coöperation" in its highest sense. It is a covenant of faith, whose constructive influence is bound to more and more deeply impress itself upon the educational and business world as time goes on.

But without the wide vision and faith of Dr. Lowell, this coöperation could not have been. The agreement between Harvard and Technology is a monument to the spirit of confidence in which our new ties are founded. It is a testimonial to the far-seeing intelligence of Dr. Lowell and Dr. MacLaurin, and is bound to redound to the greatness of the institution which they represent. As a man whose name is indissolubly connected with the progress of Technology, as one of our honored trustees, and as the worthy son of one of our most honored past trustees, I take great pleasure in introducing Dr. Lowell. (Prolonged cheering and applause.)

#### PRESIDENT LOWELL OF HARVARD

A. LAWRENCE LOWELL, President Harvard University: I want, if I may, to appear before you in more characters than one, but in doing so I am reminded of the man who asked his friend, "What is the difference between a terrapin and a seraphim?" "Well, I don't really know. I believe there was a difference at one time but I understand they have since made it up." (Laughter.)

You will realize at once that I do not mean to draw any resemblance between either of these institutions and the seraphim, to say nothing else. (Renewed laughter.) But I do want to appear in more characters than one, for, if you will allow me to say so, my interest has been always very deep in the Institute of Technology.

I have been a member of its Corporation now for nearly twenty years and my father was a member when I went on, and his father was a member when he went on, and so back to the beginning of the Institute. (Applause.) And, I think that I have a very deep feeling for the Institute. My only brother is also a member of the Corporation, and so is my brother-in-law; we have all been interested in it (laughter and applause), and tried to work for it in the past. And equally in the past I have had a good deal to do with the Institute, as I have had to do with the Corporation, and no one can come in close contact with the Institute without having an immense admiration for the work which it has done.

I know nothing so extraordinary as the feat which was performed by President Rogers—and, by the way, I remember every single president from the beginning down—when he started that institution with insufficient funds but with an enormous fund of hope. That institution has been run always on

faith (laughter); with always a good deal of a deficit but always a confidence that if you did the best possible work the community would support you and the community has now finally come to the support of the Institute, as it deserves. (Renewed applause.)

Now, let me go back a few years. I was a member of the committee that attempted to negotiate an agreement with Harvard nine years ago. I know you did not like that agreement. I was one of the two that negotiated it, but I do not think you ever quite did justice to it. I think if you will get hold of that old agreement today and read it over, and read it over with your eyes very much opened, you will find it a good deal better than you thought it was. I have been rather interested in looking over my letters at that time which were written to President Pritchett, and I think if you should look over those letters and read the agreement in the light of those letters you would take a somewhat different view of that agreement from what you took at the time, or some of you took at the time. I do not think you did the agreement quite justice; I do not think you did me or President Pritchett quite justice, but that is neither here nor there.

This agreement is better for the Institute than that one. You will not, perhaps, be surprised to hear me say this agreement is better for Harvard than that one. It is better for the whole country than that one, for it is a better agreement. I mean it establishes a far better system than the old agreement did, a system which is bound to work well.

To me the important thing about that agreement we have made is that it seems to me to be so organized as almost inevitably to work out the results which it ought to work out. In other words there is as little dualism in that agreement as possible. There is as little dual control as possible. The control is put practically in the hands of the President and the Faculty of the Institute, the members that come from Harvard being put right into one faculty. There was talk at one time of making two faculties. Not at all, because we want one faculty, one unit there for the reason that a unit will promote the greatest administrative efficiency and progressiveness in the concern. One president? Yes, and one only at the head of it. He has to report, of course, to two Corporations; he has to consult both more or less; but we all know perfectly well that the real essence, the real force of any institution, depends upon its president and its faculty.

Now, I am taking up questions which have doubtless been commented upon. There was something said in a paper known as the *Springfield Republican*—not Springfield, Illinois, you understand (laughter)—to the effect, "Why should the President of Harvard have anything to do with the selection of the President of the Institute? Why should he be consulted and the President of the Institute not be consulted about the President of Harvard?" Let me show you that question looked at in a little different way. Suppose the agreement had read this way: "The executive head of all these corporations shall be the President of Harvard, and the President of the Massachusetts Institute of Technology shall be consulted about his appointment." Would you like it better? Obviously not. (Laughter.) You see the point at once



Now there are certain very great objects in having the President of Harvard consulted. In the first place the very fact that he is consulted avoids the possibility of the danger of the selection of a man where there might be a difference of opinion and where the authorities of Harvard might not think he was as good a man as the other people did. It gives a chance to the Harvard authorities to say, "We do not think that man is quite as big a man as you ought to have for that purpose," and they must say that once for all. In fact it is a good thing to have that said if it is so; it is a great deal better than having a man selected who may cause friction thereafter. And I am not speaking of myself, of course, because President Maclaurin will long outlive me; I am much the older man; but when my successor comes along and Maclaurin goes the way of all flesh—when he dies and there comes his successor to be appointed, if the President of Harvard is consulted before a man is selected it means that he takes a part in the selection and he has got to back that man up with all the force he has in him. (Applause.)

Now, gentlemen, it is just on things of that kind that the efficiency of an institution rests. The fact is that you have produced harmony, and you have practically bound the President of Harvard to back that man up, because he cannot say he was not a good selection. He has no power, he cannot veto anything, he is merely to be consulted, and he is merely to give his advice and to say that such-and-such a man I do not think is a very good man, or that such-and-such a man I think is a good man, but as a matter of fact it practically binds him.

So in this matter of consulting both corporations; that is an admirable thing to do. Look at it from the point of view of Technology. If the President of Technology had only to consult the President of the Corporation that pays the salary of a man, he could say to Technology, "I should like to have you appoint so and so"; and he could say to Harvard, "I should like to have you appoint so and so," and not show either of them his full hand but play one of them off against the other. We do not want that at all. We want the future President—for mind you we are building for all time—we want the future President, whoever he may be, responsible for the whole thing, and we want him to treat it all as one thing and to show his hand completely. You can see that that is very important.

Another thing is that the professors who come under this arrangement should have all of the titles and rights and privileges of both institutions and this is very important because it is important that there should be no question of any difference in the standing or privileges or salaries between the professors of the Institute and the professors of Harvard. I know when we brought this matter before our faculty one of the men said to me, "Shall we preserve our sabbatical, our right to leave of absence?" and I said, "Of course." "Do they get the same privilege in the Institute?" I replied, "I cannot say as to their sabbatical." And they said, "We ought to have exactly the same privileges because we do not want to have anything that they do not have; we want to have the same salaries, the same sabbaticals, and the same privileges alike in every way so as to avoid any possibility of questions arising." As a matter of fact the salaries of the

Harvard professors were higher than the Institute was paying, but they wanted to have exactly the same salaries for both, and exactly the same privileges, because, as they said, "We do not want any question to arise of privileges enjoyed by one set of professors more favorable than those enjoyed by the other set," and that is absolutely right.

I believe that we have gotten an organization that will work, and work well. People have said to me often, "What does Harvard get out of it?" I say, "That is not a question to ask. She gets plenty out of it; I am not worrying about that. But that is not a question to ask; that is not important." The duty of each of these institutions is to do the utmost good they can to the community. I should not be willing to hold up my face nor would Dr. Maclaurin in asking anybody to give money for any purpose to the institutions of which we are the heads if I felt that we had for one moment put the pride of our institution ahead of its service to the public. Applause.)

I think nobody here will doubt that the joint force—for I admit you contribute the great bulk of the force, and the force I am speaking of now perhaps is money; you supply the great part of the money, but nevertheless the joint force which we can put into a school of this kind will make a better school than either of us can make working alone. Granting that that is true, then that is our duty to the public and it is that feeling, the feeling that we are each of us merely a means to the end and that the end we have ahead of us is the same, which is the giving of the best possible technical education we can give in the United States—it is that feeling which has made this agreement possible.

I want to say one other thing; I know that a great deal of the feeling that arose in the case of the former agreement, a great deal of the opposition came from a fear that the students of the Institute of Technology would be treated like college students who I admit have not as serious aims as professional students necessarily. It is one of the hardest tasks which anybody can undertake, gentlemen, to give the serious aspect of mind to college students which you get in professional students. You will observe in this agreement it is said that the students of Technology shall be entitled to all of the privileges of professional students in Harvard University, and we put that word "professional" in there on purpose, because we want the students to be treated as students in a law or a medical school are treated. We do not propose to mix them up with the college students.

I have always felt myself, and I have always felt ever since I have had any connection with the Institute of Technology, that it was very important to distinguish sharply between professional education and education in a college, if you were going to make the professional education serious. I am told today by men who come to our law school that one reason the Harvard Law School does as good work as it does is that in many schools in other parts of the country the students mix up in campus activities and do not take the serious view they should take. I have always believed that the professional study of engineering should be treated as a professional study, and I have always admired the courage with which the Institute of Technology

has paired off those students that did not keep up to a certain grade, by themselves. It sets a high standard and only those can go through who are large enough to stand that standard.

Now, let me repeat, gentlemen, what I said at our dinner. There was a clergyman in Boston some time ago who in the course of his sermon remarked that it made little difference from what fountain you drew your water, the important thing was the spirit with which you drank it. (Laughter.) The important thing in this case is not the exact terms of this agreement. The real important thing is the spirit with which it is to be worked. I know very well that one of the things which counted heavily in my Corporation was their confidence in President Maclaurin. (Applause.) He is one of the best administrators and one of the coolest, broad-minded men that it has ever been my pleasure to do business with (applause); and all I want to say is that we feel heartily glad of the affiliation that we have made with the Institute. (Prolonged applause.) We are proud of her successes and her achievements in the past and we look forward to a future which we can imagine large, but which no man can measure. (Applause.)

TOASTMASTER ROBINSON: Gentlemen, we began our exercises with the gathering of the clans, the clan Maclaurin. Once more, methinks, I see the gathering of the clans and hear the bagpipe playing "The Maid of Dundee" in honor of the next speaker of the evening.

You all appreciate the innate modesty of Chicago. (Laughter.) Were it not so, it would be my privilege to touch upon some points of greatness of Illinois; but be that as it may, I wish to say that it can be no violation of delicacy to record that our corn crop is not our greatest crop, that our stock yards are not our greatest industry. We, out here, are preëminently proud of our product from Champaign. (Applause.) It exhilarates—though not as from the land of France. (Laughter.)

The University of Illinois typifies much that is greatest and best in the educational world. It has had its achievements primarily through the quality of the men that have surrounded it. In the development of the last twenty years Dr. David Kinley has played an important part. In addition to his brilliant career as an educator and as a college executive he has served the public in many capacities, on commissions both here and abroad, and has contributed much to the literature of finance and economics. He is a man who has stamped his personality not alone on the world of education, but likewise upon the world of economics. It is a great pleasure to introduce Dr. David Kinley. (Applause.)

#### VICE-PRESIDENT KINLEY OF ILLINOIS

DAVID KINLEY, Vice-President University of Illinois: I am reminded by what President Lowell said of the spirit with which we should drink our water, of a conversation I overheard once between two Teutonic fellow citizens who were standing by a table in a certain place with certain glassware and liquids before them when one of them, just before placing the order, said to the other, "Friedrich, will you take yours mit or will you take yours

mitout?" I am glad to see that Harvard has concluded to take hers M. I. T. (Laughter and applause.)

I regret more than I can say that President James was not himself able to represent the University of Illinois and to say in better words than I can what we think here in our part of the Mississippi Valley of the great educational achievement that you are celebrating here to night. I bring his congratulations to you, President Lowell, as I have already given them to President Maclaurin and to all of you representatives of the Institute and of Harvard, upon what is one of the most notable, if not on the whole the most notable, educational accomplishments of the decade. For, as I shall hope to show before I get through, it is notable not only in the achievement of a coöperative movement between two of the greatest educational institutions of the world, but notable also because it is, whether fully realized or not, a recognition of a greater future for a greater and larger kind of engineering than this country, at any rate, and perhaps the world has yet known.

I take peculiar pleasure, as a representative of a state university in the middle west, in bearing my congratulations for the President and Faculty of the University of Illinois to all of you upon this occasion. I am going further than that; although I do not officially represent any other institution than the University of Illinois, yet I know that no fellow alumnus of mine from New Haven (applause) would raise a word of objection but rather would endorse me when I say that as a Yale man I, too, rejoice in the splendid achievement that you are celebrating tonight. (Prolonged applause.) And I join with you, President Stone, and I know that President Judson, here on my right, will second what I say, when I say that all of the institutions of the Mississippi Valley are in hearty accord in their approval of what you have done, and in their anticipations of the greatness of educational achievement as a result in the years that are to come.

There has been in this country for a good many years a kind of conflict between what is known as cultural education and technical or professional education. Even yet I hear once in awhile some of my academic friends speak slightly of the technical and the practical man. I confess, although my own education was mathematics, and Greek and Latin with a little economics thrown in later, added after I left Yale and went to another institution—I confess, I say, although my education was along the old lines, I have never been able to sympathize with that feeling. I have never been able quite to distinguish between what would be called absolutely cultural or absolutely practical.

I remember having a discussion of the subject a few years ago with a dear old friend, a college president in Illinois whom some of you know. I asked him, "Is Latin a cultural subject?" "Oh, yes, Latin is a cultural subject." "But," I said, "suppose somebody studies Latin for the purpose of teaching Latin, is it a cultural subject then?" "Not at all, sir. It then becomes a bread and butter subject." (Laughter.) And I concluded in that discussion also that the important thing was the spirit in which you take it; that after all culture is very largely a matter of the spirit, and that a study

need not be any less cultural because, as President Eliot, I think, once said, it happens to be useful. (Laughter.)

The cultural value of a subject after all lies, it seems to me, in the extent to which and the intensity with which it brings the person who studies it into relation with humanity and life, and you can touch the current of human life or civilization either in the historic past or in the pulsating living present; and therefore, through your history or through your language or through your science, if you go at it with that purpose, with a proper perception of relative values and in a spirit that is going to imbue in the hearts and minds of the people you are teaching the great purposes of human life, you are teaching the strongest and best kind of a liberal education.

I believe further that properly taught even extremely technical subjects can be utilized for purposes of that kind of culture. I remember once telling a teacher of bookkeeping that his failure lay as a teacher of bookkeeping in his failure to build a philosophy of life on his bookkeeping. And that in a sense is what I mean when I say that culture may be gotten out of even the stones of technical subjects.

This union of Harvard and Tech is well celebrated as a Boston achievement in the city of Chicago. They have to come here for their enthusiasm and their support. They did not have sufficient faith after they had done it to stop at home and cheer themselves with a vision of the future and of the wonder that would be. They are a little bit like the old maid from New England who was encouraged once to visit a Boston cousin. She went reluctantly because she had very Puritanical opinions and was not quite sure about the wickedness of that large city. When she got there her friends, thinking that she would want to be entertained, asked if she would go to the theater. But oh, dear, no! So they bethought themselves that there was a lecture in the city that evening, and I think it must have been one of the Lowell Institute lectures. (Laughter.) They asked her if she would like to attend the lecture and she said yes that she would be glad to hear a lecture. Well, it was a lecture by Colonel Robert Ingersoll. (Laughter.) She went, came home and the next morning said very little at breakfast and they tried her again. Would she go to a lecture? Oh yes, she would go to a lecture, and so they tried it again. That night she went to a lecture by Ignatius Donnelly on Shakespeare. At the breakfast table next morning she still showed calm. So they tried it again and that night she went to a lecture by Jenness Miller on reform dress for women. Next morning she announced at the breakfast table that she was going home. "Why," cried her cousin, "what are you going home for, Aunt Mary? You said you were going to stay here for three weeks." "Yes," she replied, "but Boston is a place that shatters ideals. I have been here three days, and I have lost God, my ideals and part of my clothes, and I am going home." (Laughter.)

I am glad to see there has been a revivification of faith in Boston and that they dare to do things that look largely and magnificently to the future. For the faith that is behind this magnificent achievement as I see it lies here: it is a promise of the con-

tinuation of the high ideals of scholarship and work in technical lines that has characterized the engineering education of the Institute of Technology in the past. It is a promise to open up new vistas, new lines and new levels of engineering education in the future. Concrete problems of engineering education in this country and engineering practices in this country in the past have been, speaking largely, problems of construction, and the purpose of those problems has been well served by the education that the Institute of Technology by its courses of study in the past has furnished.



GEORGE B. JONES, '05  
Secretary Northwestern Association

I think that the great problems of construction are still to remain; although in certain fields, like railways, they are not to play so large and important a part in the future as they have in the past; but the greater problems of engineering in the future are to be problems of organization, administration and finance. The Panama Canal, the Assouan Dam, the Deep Waterways problem and all of these, and many others you will think of more readily than I, are calling for men who are not only great constructive engineers but men who can coordinate and organize the resources of a vast nation or a group of nations for the accomplishment of a mighty purpose. They are men who know enough about finance to foresee and coordinate the factors that are necessary to success. They are men who know enough about human nature and the handling of men to take men in large groups as



Goethals has done in the Panama Canal and make the engineering and administrative community.

That, to me, is the prospect for the engineering of the future and that is what I mean by the new kind of engineering. The great problems of construction, as I say, will remain and the education necessary to train men to solve them will remain, but this new and, as I think, higher education will call for a training of a somewhat different character. It will be a training, not neglecting the training in the technical subjects of construction and operation, —but it will be a training that will give a knowledge of men, that will give a knowledge of resources, that will give a knowledge of finance, that will give a knowledge of business organization, and such additional knowledge of law as will enable the engineer in charge of a great scheme to properly coordinate and organize all these various factors. What kind of an engineer will that be, and what kind of training should be furnished for such a career? I say that we will not neglect in that graduate or semi-graduate, construction that will undoubtedly be developed for such engineering, that technical training which we have seen so splendidly done in Boston in the past, but we will add to it a larger study of the things that pertain more directly to human life, history and economics, finance, business organization. We will add to it even more than we are trying to add to it now, a better knowledge of our own and of other languages. One of the things in which the engineer has failed in a great many instances has been that sufficient command of his own tongue to put his case winningly to the people who are going to finance his project; to present his reports in such a way that they carry conviction from the very reading of them. I have known of instances of failure from that very thing. That is not peculiar to the engineer. Far be it from me to say that he is a greater sinner in this respect than many of the rest of us, but the fact that the rest of us sin in that respect is no reason why he should continue to fall short, because his stake in a way is greater than that of many of the rest of us.

Therefore, in that new course of study that I am looking forward to seeing established there will be a greater emphasis still upon the study and practice of clear, simple, terse English. (Applause.) The railway engineer, the mechanical engineer, the electrical engineer who has to undertake the larger projects of the future will need to know something of economics on the social side in order that he may pay due attention to the rights and privileges of the public and not think that he is altogether, as he and the lawyer have too frequently assumed in the past, the servant of the client, for he is at the same time the servant of the public, and his projects and those of his friend, the lawyer, must be carried out in the future with more regard than they have been in the past to the fundamental and eternal rights of the public in the projects with which he is entrusted. (Applause.)

He will need in the next place, to further his plan, a knowledge of industrial economics, that business organization, that coordination of his resources of which I spoke. That is the very essence, the very pathway to success in any business, and which the engineer in larger measure, especially in adminis-

trative positions, will need more than he will need even his technical constructive knowledge.

I am one of those people who think that the time is near at hand when we are going out into the world to return some of the service to humanity which we, as a people and as a country, have gotten from the civilizations of the old world. Our young men are going out more largely into South America and into the Orient than they have in the past. They are to be entrusted with projects of development, constructive service and organization in those countries that have confidence in us, in our policies and in our political system more largely than has been the case heretofore. In order that they may be successful they must know the people they are going to. They must know the language of the people they are going to, and, therefore, this new coordinated institution will furnish larger opportunities of the study of history and literature and the life and language of the peoples to the south of us and the peoples in the far Orient. It will furnish these opportunities in technical courses, in their practical courses, in their engineering courses, and not merely the literary and scientific side, so that when an engineer goes to construct a railroad in China, and I had the privilege of helping to nominate one three or four years ago myself, it will be easier than it was then to find a man who can talk French. He did not have to talk Chinese, but he should talk French in a way that would be understood; and he should be able when he writes a letter in French involving the expenditure or touching upon the expenditure of a half a million dollars so as not to express it in language that might make it read fifty thousand dollars.

Therefore, this engineering education is bound to lay for practical reasons a larger emphasis and is bound to furnish for practical reasons a larger opportunity for the study of foreign languages. Therefore, I welcome this consummation that has been achieved on the banks of the Charles not only, as I said, because it means the continuance of the high ideals of engineering education that we have seen the Institute committed to and practicing in the past, but because it is the first recognition on a large scale that we are at the opening of a new era in engineering opportunities, in engineering life and in engineering problems, the problems, I say, of organization and administration, which added to those of construction will enable our young engineers to go out and serve their country and the world with larger measure and with mightier success than has been the case in either of these splendid institutions in the past. (Applause.)

TOASTMASTER ROBINSON: Gentlemen, the curtain falls on the first meeting of the Technology Clubs Associated. We are glad to have had you with us. We wish you all Godspeed, and we ask that you individually and collectively all remember that the latchstring of Chicago and of the Northwestern Association is ever on the outside waiting to be pulled. We stand adjourned.

MR. WILLIAM H. KING: Mr. Chairman and Gentlemen, I have been requested as president of the Technology Clubs Associated, by the Alumni Association, by the Technology Clubs of Boston, of New York, of Pittsburgh, of Cleveland, of Detroit, of St. Louis, of Kansas City and the other clubs

here represented to say this word of thanks and appreciation to the men of Chicago for the splendid program they have given us during these last two days.

From the beginning of the time that we arrived here and the reception we received, the luncheon at the Blackstone, the excursions that afternoon, the magnificent smoker that night at Cathedral Hall in the University Club, the delightful excursion to Gary this afternoon, the reception this afternoon and this evening's banquet, we all feel that the thanks of all the clubs throughout this country are due to the Northwestern Association and to Chicago; and we will revere the names of Mr. Sturges, Mr. Robinson, Mr. Ferguson, Mr. Shortall, Mr. Jones and the men of the executive committee who have raised such a high standard for the Technology Clubs Associated.

The word will go forth to Boston and to all of the clubs of what Chicago has done, and of the standard that it is expected to reach in the future. It has been an inspiration to the older men of the classes, to the younger men who are coming along, to the professors of the Institute and to the President of Harvard College who was here tonight and who will see that there is a loyal alumni association back of the ideals of Technology ready to further its progress in the future.

I ask as an expression of all of this the M. I. T. cheer for Chicago.

(All rose and joined with a will.)

### New Club at Indianapolis

The alumni of the Institute living in the vicinity of Indianapolis met at the University Club of that city on January 10, and perfected a local organization, to be known as the M. I. T. Alumni Association of Indianapolis.

This is the forty-first local alumni association in the Technology galaxy, and much good is expected of it, as it is the only Tech association in the State of Indiana.

Most of the evening was devoted to the discussion of the plans of the new buildings of the Institute to be erected in Cambridge and in reporting the meeting of the association, the *Evening Sun* published a complete set of plans. The following officers were elected: President, J. L. Wayne, '96; vice-president, William G. Wall, '96; secretary, Wilson B. Parker, '88.

There are a large number of Tech men in the city of Indianapolis, and it has been proposed to hold monthly luncheons at one of the clubs there.

Those present at the meeting were:

Severance Burrage, '92; Wilson B. Parker, '88; Matthews Fletcher, '09; B. R. Rickards, '99; A. R. Holliday, '99; H. A. Scherrer, '03; J. H. Holliday, Jr., '05; F. B. Shields, '07; F. S. Hollis, '90; Joseph W. Stickney, '96; Walter C. Marmmon, '95; William M. Taylor, '86; Charles B. Meyer; C. A. Tripp, '93; William G. Wall, '96; William Winter, '03; J. L. Wayne, '96; C. P. Rockwood, '01.

### Death of Frederic E. Woodbury

Frederic E. Woodbury, '89, president of the Woodbury Refining Company and general manager of the Milwaukee Coke and Gas Company, of Milwaukee, was accidentally killed by being struck by a skip in the Newport mine shaft, at Rockwood, Mich., January 21.

For many years Mr. Woodbury was in the Michigan copper district, part of the time as chemist for Calumet & Hecla Mining Company.

Mr. Woodbury's home was in Milwaukee, Wisconsin.

### Death of Bradford H. Locke

Bradford H. Locke, '72, a well-known mining engineer of New York, died at his home in Lexington, Mass., February 22, at the age of 64.

After a short professional career in California, he settled in Colorado, where he became interested in extensive mining operations. During his last years he has resided in New York, where he has devoted his time in developing the Locke electric drill.

Mr. Locke traveled extensively, the most notable of his journeys being an exploration of Abyssinia in the interests of Sir Ernest Cassel.

### Ten Thousand Dollars to Technology

By the will of Mrs. William Abbe, of New Bedford, a sister of former Senator Jonathan Bourne, Jr., of Oregon, the Institute of Technology will receive \$10,000, to be known as the "Jonathan Bourne Scholarship Fund."

## COUNCIL DISCUSSES COÖPERATION WITH THE STATE

Matter to be studied by a Special Alumni Committee—New office of Field Manager created to bring local associations into closer relations with the Council—  
The Rand Memorial

At the meeting of the Alumni Council on Monday, February 16, four subjects were presented, the approval by the Pittsburgh Alumni Association of the movement for coöperation with Harvard University, the proposed Rand memorial, the appointment of an alumni association field manager, and coöperation between Technology and the state.

The Pittsburgh Association had voted to express to Presidents Maclaurin and Lowell its enthusiastic commendation for taking such a step towards the advancement of higher technical education.

With reference to a memorial to the late F. H. Rand, assistant treasurer and bursar, note was made of the informal conferences of a number of alumni. It was suggested that the memorial take the form of an endowed fireplace, perhaps in the new Walker Memorial building, where the cheer that emanated from Mr. Rand to Faculty and students alike, might be symbolized by an open fire. A committee was appointed to take up the whole matter.

President Whiting in speaking to the council about the relationships of the alumni associations to the Institute stated that it had been deemed wise to create a new office, that of field manager of alumni associations. There are more than forty associations in different centers in this and other countries and these exist without regular communication with the parent school. It shall be the duty of the field manager to keep in touch with the different associations and keep them in touch one with the others and with M. I. T. The officer will connect the associations and furnish what the president facetiously termed "the missing link." Mr. I. W. Litchfield, '85, was named field manager.

The important subject of the evening was the consideration of the general question, coöperation between the Massa-

chusetts Institute of Technology and the state, city and citizens, whereby the wealth of information and experience that Technology possesses and the ability to discuss technical problems, may be made of public benefit. It was developed in the course of the discussion that the Institute and its Faculty are constantly engaged in such service, and in an efficient though somewhat desultory way. The outcome of the discussion was the naming of a committee to co-ordinate these matters and give to them that publicity which shall be for the general good.

In presenting the subject for discussion President Whiting called attention to the fact that heretofore the problems that have been considered officially by the Alumni Association have had to do with the Institute itself. It has taken up the matter of the Summer School of Surveying; it has had its full share in the development of the plans for the new buildings; it has had a report on student housing that is by far the best of its kind known to science, and it has given its attention to questions of instruction like the proposed course in business engineering and the accepted innovation of instruction in aëro-dynamics. Further than this it has afforded to the Institute substantial financial support.

"In the course of the work there has been aroused a public sentiment in favor of the state grants to Technology," said Mr. Whiting, "and it is now timely to ask whether our field may not be expanded and the association take up the question of how Technology can aid the people and the Commonwealth."

The speaker mentioned how certain western universities have taken important parts in directing the utilities of the states in which they are located and how official state institutions of learning

have been important factors in state development.

Prof. Dugald C. Jackson of the Department of Electrical Engineering was the first speaker. He stated for his initial phrase that, having been for sixteen years under the badger at the University of Wisconsin, he now felt quite at home under the shadow of the beaver, referring of course to the recent selection of the industrious quadrupedal engineer for the mascot of Tech.

There are three general categories in which colleges lie, which have been state founded or state aided: agricultural colleges, which with their experiment stations have always been well supported; engineering and mechanic arts schools, which in some states have followed the agricultural ones, and third, the civic connections of such institutions through their faculties.

Some of the advantages to Wisconsin were outlined by the speaker. Thirty-five years ago Wisconsin was poor. It had gained some wealth through lumbering but the farming was not on a paying basis. There was lack of standards, and, in the matter of milk, these were furnished by Dr. Babcock of the University of Wisconsin, and Wisconsin has now taken its place as a dairy state. The experiment station took up the matter of selection of seeds, and the farmers now keep apart their choicest stalks for the raising of new crops, instead of in the older hit-or-miss fashion. Ohio has done things in other lines, and New York. Purdue University installed a locomotive testing laboratory which work has now been taken up by the great railways for themselves. Incandescent lamps have been tested in technical ways and in this the engineering schools have been very useful.

The M. I. T. has done as much as any of the other institutions in contributions to knowledge. The tests of large timber of the older days were of tremendous public importance, while the vehicle tests now under way are attracting universal attention and are helping establish the standards for the world. The latest investigation in this line is that of the R. H. Macy Company delivery system

which is directly a work from which the whole business community may profit. Results of these investigations are freely published by the Institute for the benefit of the business world.

In connections that are directly with the commonwealth or municipality, the western universities are very strong, those of Wisconsin and Illinois in particular. Professor Goss, M. I. T., '79, of the University of Illinois, has been borrowed by Chicago for awhile, and his particular problem now is whether electrification on a large scale will pay.

So far as Technology is concerned the work for the Faculty is harder than either at Wisconsin or Illinois, so that the professors cannot do so much outside work. But at the same time even with this handicap, there is much more work of the kind going on than even the Faculty recognizes. In addition to the items already specified there are six assistants giving whole time to work of investigation in the Electrical Engineering Laboratory alone. There are members of the Faculty on the Boston Transit Commission, the Charles River Basin Commission, the Museum of Fine Arts, while engineers from Tech are to be found in all the departments dealing with public works. Then the president of the Franklin Institute is an alumnus of the Institute and also the head of Wentworth Institute, schools which like the Institute, are furnishing to the citizens of the commonwealth students with special kinds of training. Then again, such men as Professors Sedgwick, and Phelps, '99, are continually in demand by public boards, the latter of whom is now permanently attached to a great government service; Professor Moore, '02, was so much in demand by the state for his knowledge of bridges that he has now given up teaching; Professor Prescott, '94, serves the dairy interests of this and other states, while Professor Wickenden has benefited many municipalities on account of his knowledge of illumination. And these are in two departments of Technology only. This work is excellent, but the fact that it is of such consequence is not generally known.



In calling on Prof. Dwight Porter, President Whiting referred to him happily as "one of ripened judgment." Professor Porter noted that it is important to keep the fact in mind that the Institute has always been doing a great deal of public work. The primary purpose of the school is important, the training of young men to be useful, and no other service to the city or state that it can perform is more so. The items outlined by this speaker were largely with reference to the questions which come to Technology. A physician is looking into the flow of the blood and asks about the laws of hydraulics; an inventor wishes an opinion on a tidal mill; a young man in Cuba has a pump; a salesman of lead pipe wishes data on the flow of oil through the same, and hundreds of others. In this way Technology helps the people directly for such questions are answered even at the cost of much time. It is a work of value.

Professor Porter spoke of the experimental sewage laboratory and of the legal and experimental work of the Faculty and finally of the theses of the students. While these are primarily for the benefit of the undergraduates, they, in considerable amount—10 per cent. it is estimated—are distinct additions to the knowledge of the world. Many of them are published privately on account of the value of their results.

Dr. W. H. Walker, professor of chemical engineering, called attention to the pioneer work of the instructing staff of the M. I. T., in that President Rogers established gas inspection for the state while Dr. Drown and Mrs. Richards, '73, furnished fundamental principles of world-wide application in water supply work. The Research Laboratory of Applied Chemistry has many fields of usefulness. The demands for space for the students has, however, enforced a curtailment of investigation, and there are only four important investigations now under way. There is much *pro bono publico* value in thesis work. There is the opportunity by such work to increase the natural resources of the state.

Other speakers were James F. Mc-

Elwain, '94, Henry J. Horn, '88, and J. W. Rollins, '78, the keynote of whose brief addresses was loyalty to the Commonwealth and as much help in public service advice as possible, while Professor H. W. Tyler, '84, forecast the coming importance of engineering experiment stations, which the M. I. T. has already anticipated. He crystallized the situation at the moment as being one of distinct and signal advice by Technology to the Commonwealth and municipality, but by individuals. The matter is of such importance that it should be coördinated and the Institute should have a staff especially for work of the kind.

It was voted to appoint a committee to discuss the whole question to report later with recommendations.

The question of finances was introduced by the president who outlined a suggestion made by him which would, if carried out, prove a large source of advertising revenue to the TECHNOLOGY REVIEW. This matter was referred to the committee on publication of the TECHNOLOGY REVIEW, to be reported on at the coming meeting.

The president also spoke of the desirability of having all matter published in the TECHNOLOGY REVIEW passed upon by the board of publication, who would assume all responsibility of the editorial policy of that magazine. It was pointed out, however, that it would be impossible for the committee to pass upon all matters printed in the REVIEW, but that there would be an opportunity to discuss and determine upon the general policy of the magazine. It was voted that the suggestion of the president be adopted.

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### Death of William P. Monahan

William P. Monahan, '07, of Brighton, a civil engineer, was drowned at Fresno, Cal., January 25, at the time of the floods.

He was the son of Mr. and Mrs. James Monahan, 6 Strathmore road, who, with two sisters, survive him.

## NORTHERN OHIO CLUB CELEBRATES

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Hearty cooperation in Ohio has made it an important Tech center—Cleveland the scene of a brilliant banquet with President Maclaurin as the guest

That the alumni of northern Ohio are making an important place for themselves in the roster of local alumni associations was amply proved at the brilliant dinner given by that association at the University Club in Cleveland on the evening of February 23.

Cleveland is a strategic point in the chain of alumni clubs, and it is only in the last year or two that the interest there has waxed to a point of enthusiasm that bids fair to top the other associations on the list.

This is made possible because of the strong backing of the loyal crowd of Tech men from Akron who are always present at the Cleveland festivities, and who are prominent in its activities. It was apparent at the banquet that the new policy of putting in the young, energetic men to run the machinery, while the older men stood behind them, was perhaps the principal reason for the tremendous growth of interest. Certain it is that the state of Ohio has become a very important Technology center, and when President Maclaurin greeted his audience that night, he was applauded by men from all over the state.

The banquet room of the University Club is particularly fitted for an occasion of this kind, with a high ceiling and good ventilation. It was brilliantly lighted and tastefully decorated. In front of each guest was a toy balloon, and the moment the company was seated, these balloons became shuttle-cocks, and the air was filled with them.

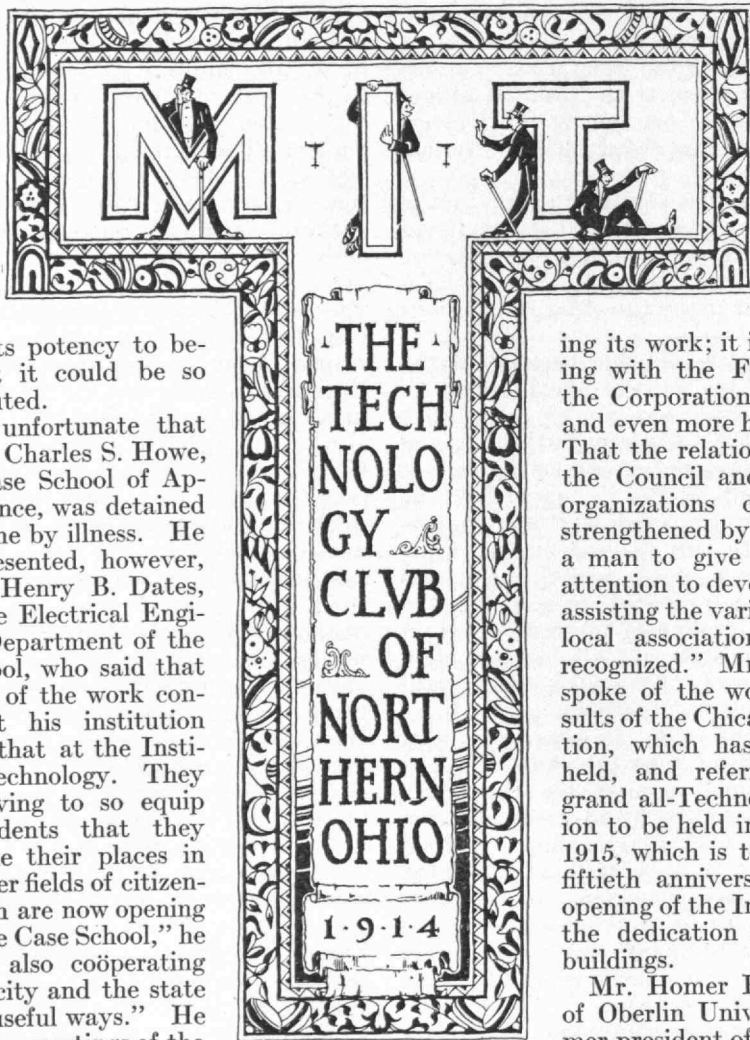
During the evening the glee club, most of whom hailed from Akron, rendered a number of songs, some of them original. Among them was a "Technology Rag," written for the occasion by Edwin C. Vose, '11, of Akron. The club has given a great deal of attention to singing, and as a result the Technology songs were exceptionally good.

During the evening a little Scotch woman wandered into the room in search of her husband; but as he did not appear to be present, she volunteered some Scotch songs, which brought out an encore. The performer proved to be a well-known Scotch impersonator, who rendered a number of pleasing selections.

President F. A. Smythe, '89, of the club acted as toastmaster, and a very graceful one. Upon being introduced, President Maclaurin referred to the pleasure of his last meeting with the Alumni Association of Northern Ohio at the rubber gathering in Akron. That meeting had been marked by great enthusiasm, although the present meeting in Cleveland was in that respect the most impressive gathering of Tech men ever held in Ohio. Such experiences, he said, were most encouraging to the authorities of the Institute, and it was especially gratifying to find amongst the alumni present so hearty an approval of the policies of Technology, especially in regard to two great movements of recent times—the movement to a new site and the alliance with Harvard. After describing the new buildings with the aid of lantern slides, he explained certain features of the agreement between Harvard and Technology. He depicted the magnetic power of the new Technology with its noble buildings and splendid provision for all the needs of the students. Even now the Institute draws bright men from all parts of the world, and he prophesied that the alliance with Harvard would add greatly to its attractive power. It would throw open the resources of two great institutions to Technology students and could scarcely fail to draw a large proportion of the ablest and most ambitious students and a large proportion of the best teachers and most skilful investigators. This could not fail to build up a mighty new Technology, whose power and influence in shaping the

destinies of the future it would be difficult to exaggerate. While the Institute had much to gain by this alliance, he could see nothing that it need lose. He had no fear whatever of any diminution of the power of the Tech spirit. He had too great

zations, and the character of the work that is being done, referring briefly to the perfection of the undergraduate organization of the Institute. "The Council," he said, "is now organized on a business basis; it is analyzing and unify-



faith in its potency to believe that it could be so easily diluted.

It was unfortunate that President Charles S. Howe, of the Case School of Applied Science, was detained at his home by illness. He was represented, however, by Prof. Henry B. Dates, '94, of the Electrical Engineering Department of the Case School, who said that the spirit of the work conducted at his institution was like that at the Institute of Technology. They were striving to so equip their students that they could take their places in the broader fields of citizenship which are now opening up. "The Case School," he said, "is also cooperating with the city and the state in many useful ways." He brought the greetings of the president and the faculty to the sister institution represented by President Maclaurin, which had been such an inspiration to other institutions similar in purpose to it.

I. W. Litchfield, '85, of Boston, field manager of the Alumni Association, spoke of the status of the alumni organi-

ing its work; it is cooperating with the Faculty and the Corporation in a larger and even more helpful way. That the relations between the Council and the local organizations could be strengthened by appointing a man to give his special attention to developing and assisting the various outside local associations, is now recognized." Mr. Litchfield spoke of the wonderful results of the Chicago convention, which has just been held, and referred to the grand all-Technology reunion to be held in Boston in 1915, which is to mark the fiftieth anniversary of the opening of the Institute and the dedication of the new buildings.

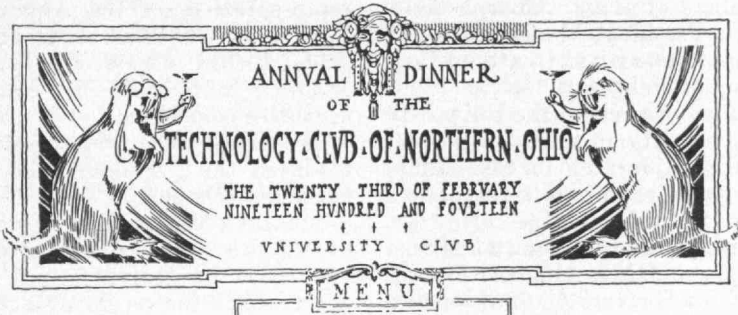
Mr. Homer H. Johnson of Oberlin University, former president of the Chamber of Commerce of Cleveland, warned his hearers against taking more than their share of the wealth of the country. "It is up to you graduates of Technology," he said, "to solve the problem of the struggle of labor against capital.

"You engineers will be nearest the busi-



ness man and nearest the laborer. The attitude of the public toward business is that it is being exploited by business, and that it is existing for the benefit of business instead of business existing for the public's benefit. The public has come to be-

Monto, '10; W. P. Potter, '00; F. A. Emmerston, '73; H. S. Alexander, '06; James Ritchie, '78; H. G. Reynolds, '10; A. D. Hatfield, '93; J. W. Brown, '00; P. J. Franklin, '13; C. R. Johnson, '11; F. R. Walker, '00; A. T. Hopkins, '97; H. E. Weeks, C.



lieve the patent laws have made inventions no longer the handmaiden of progress, but an instrument in the hands of business to exploit the public and that education is an obstacle to betterment. It is up to you students of science to take the leadership of the misguided fourth estate from the hands of fanatical, unreasoning spreaders of discontent."

Rev. Minot O. Simons, pastor of the First Unitarian Church, Euclid avenue and East 82d street, and former president of the Associated Harvard Clubs, also spoke.

The menu card, which was drawn for the occasion by F. R. Walker, '00, and is produced here, was unusually attractive. It was composed of two pages cut into the form of a "T" from heavy gray paper, the two parts being held together by a cardinal and gray ribbon.

The men present at the banquet were: Prof. H. B. Dates, '94; M. S. Wilcox, '96; G. T. Glover, '08; A. A. Gould, '10; R. W. Ferris, '08; Wm. S. Wolfe, L. G. Odell, '11; J. C. Tuttle, '10; B. Darrow, '11; C. P.

CELERY OLIVES  
OYSTERS ON HALF SHELL  
CREAM PORTUGAISE  
BROILED LAKE TROUT  
DORNE FEMME  
TENDERLOIN PRINCESSE  
POTATOES CHATEAU  
ASPARAGUS TIPS  
HEAD LETTUCE  
ROQUEFORT DRESSING  
CAKES COFFEE  
CHOCOLATE ICE CREAM  
A LA BEAVER

TOASTMASTER  
MR. F. A. SMYTHE

SPEAKERS  
PRESIDENT  
RICHARD C. MACLAURIN  
PRESIDENT CHARLES HOWE  
MR. H. H. JOHNSON  
REV. MINOT O. SIMONS

J. Berry, '13; D. L. Ordway, '01; J. H. Dunlap, '11; L. E. Wright, '13; H. D. Mitchell, '12; E. J. Edwards, '08; Prof. F. L. Bardwell, '84; W. L. Sutliff, '99; L. A. Roby, '75; W. J. Sweetzer, '01; W. R. Strickland, '98; C. L. Dows, '12; Wm. H. Lambirth, '95; H. C. Mabbott, A. M. Eicher, R. W. Pratt, '98; V. R. Lansing, '98; F. A. Smythe, '89; R. T. Haslam, '11; C. W. Brown, '99; P. W. Litchfield, '96; K. B. Kilborn, '11; R. K. Shepherd, '94; Max Hellman, '96; C. H. Shaw, '10; G. Katzenstein, '13; Stanley Motch, '99; R. B. Wallace, '98; C. B. Smythe, W. H. Eager, '04; E. B. Rowe, '06; H. E. Baldwin, H. E. Allen, R. Sheridan, '75; E. R. Motch, '97; G. E. Merryweather, '96; C. R. Haynes, '04; F. Metcalf, '90; T. W. Car-

lisle, '10; C. S. Pulman, '04; D. R. Stevens, '11; Dr. R. C. MacLaurin, H. H. Johnson, I. W. Litchfield, '85; Rev. M. C. Simons, R. T. Bailey, '12; R. A. Staples, R. W. Johnston, G. W. Sherman, '94; R. A. D. Preston, '10; A. L. Patrick, W. J. Cady, '06; F. E. Cady, '00; L. M. Bourne, '04; W. N. Brown, '02.

## A HEARTY GREETING IN PITTSBURGH

President Maclaurin welcomed at annual banquet—Courtesies from the Harvard Club of Western Pennsylvania

The members of the Pittsburgh Association gave President Maclaurin a fine reception upon his arrival to attend their annual banquet February 24.

The banquet was held at the University Club, and over fifty members were present. Before adjourning to the dining-room there was a reception in the parlors of the club to President Maclaurin, Mr. Julian Kennedy, the well-known engineer of Pittsburgh, and Mr. Alvin A. Morris, president of the Harvard Club of western Pennsylvania. After the reception the guests formed themselves into class groups, and, headed by President Maclaurin and Morris Knowles, '91, president of the Pittsburgh Association, marched into the dining-room.

The spirit of the Pittsburgh alumni is proverbial, and the dinner was full of enthusiasm. The singing, led by L. K. Yoder, '95, was especially good. One of the songs sung was the "Greenback Song," written for the alumni reunion in 1909, which has proved so prophetic. After this song Dr. Percival G. Eaton, Harvard, '83, who was a guest, added an impromptu verse which was sung with a will. It was as follows:

Maclaurin and Lowell, we greet you!  
Great things for the future we see  
May our fellowship broaden and ripen,  
Fair Harvard and dear M. I. T.

Soon after the guests were seated a large basket of beautiful red and white carnations was sent in to the President with the compliments of the Harvard Club of western Pennsylvania. This graceful courtesy was acknowledged fittingly by President Knowles and by the audience in a long Tech cheer with three Harvards.

Before the speakers were announced, the officers for the coming year were elected: President, William E. Mott, '89; vice-president, L. K. Yoder, '95; secretary-treasurer, Harry A. Rapelye, '08;

representative on the Alumni Council, S. B. Ely, '92. The above officers, with A. G. Pierce, '92, W. F. Davidson, '01, Maurice R. Schraff, '09, constitute the executive committee.

Morris Knowles, '91, toastmaster, introduced the President, who received a rousing Technology cheer.

President Maclaurin expressed his pleasure in the formal approval of the alliance between Harvard and Technology expressed in the recent resolutions of the Pittsburgh Association, as well as by personal endorsement of individual members. He referred to the coöperative spirit that characterized present day thought and indicated its influence in the solution of the problem of the proper relations between Harvard and Technology. He understood that there was some opportunity for the local application of this spirit, but such problems as he referred to must be solved locally and not from without. The great advantage of the alliance with Harvard was that it enabled both institutions to use their resources to the greatest advantage for the service of the community. Both parties gained and in view of the great advantage to society there was no point in inquiring too closely as to which party had the better of the bargain. All that Tech need see to was that the alliance would not bring about an abandonment of methods that had been proved to be good. There was no ground for fear in this direction. All concerned wanted to do the right thing and none would suggest changes in what had proved its efficiency. No change either in the organization of Technology or in its educational methods or its ideals need result from the alliance. There need be no fear of loss of independence. Technology was sufficiently well entrenched to look out for itself, and Harvard lacked the power as well as the desire to undermine its independence. As far as he could see things,

everything would go on after the alliance much as before, except that there would be greater resources, better conditions and a larger proportion of exceptional students and exceptional teachers and, therefore, better results.

Julian Kennedy of Yale, who was introduced next, took for his topic, "The Engineer in the Community." He said he thought it was a good thing to take four years at Technology even though the student were to devote himself to law, medicine or theology. He said he would do it if he intended to be an evangelist. He congratulated Technology on the coöperative plan between it and Harvard, and thought that some of the weaker churches might follow the same course to a great deal of benefit to the community.

The engineer is a conservator of energy. He is utilizing forces, men and material with great ability; but he is too engrossed to give any attention to the conduct of our public institutions. He said that the hospitals of Germany cost about 40 per cent. as much as our own to run, and are much better administered. He thought that it was the duty of those trained to see the value of such coöperation to take part in public matters and see that our public institutions are run with ability as well as with greater economy.

Mr. Alvin A. Morris, president of the Harvard Club of western Pennsylvania, spoke of the local coöperative spirit which was growing up between Harvard and Technology men in Pittsburgh. It was refreshing to find one combination of the kind that can be heartily approved without having the motive suspected. He thought that the Presidents of both institutions had in mind the best way to aid the student without taking into account small details that count for little. He referred to the address of President Lowell of Harvard in which he expressed his great confidence in President Maclaurin, of the Institute. He thought that the coöperation of the alumni of both institutions would help the Presidents to work out the plan smoothly and make it a success, and, on behalf of the Harvard Club,

offered to President Maclaurin its sympathetic support.

I. W. Litchfield, '85, field manager of the Alumni Association, was the last speaker. He told the audience briefly of the wonderful organization of the undergraduates under the Institute committee, which now has practically general control of all activities. He referred especially to the finance committee which safeguards the financial dealings of the various student groups and societies, and of the part the students will play in the government of their own affairs on the new site in Cambridge. He also referred to the growing power of the alumni association largely brought about by the good work of such clubs as the Pittsburgh Association, and invited all of his audience to be present at the great Technology reunion in 1915, which will be the most remarkable celebration Tech alumni have ever attempted.

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### Dr. Jaggar Observing Sakura

Upon learning of the disastrous volcanic eruption on Sakura Island, Japan, Dr. Jaggar, who is director of the Technology Observatory Station at Kilauea, Hawaiian Islands, hastened to Japan and was at the scene of eruption long before any other of the scientific men from the West.

Dr. Jaggar has been fortunate in being early on the ground where notable eruptions have taken place. He was early at Mount Pelee in the Antilles, and was early on the ground after the disastrous eruption on Bogoslof in Alaska, which is an island that is constantly changing its form, and which has been the foundation of the study of the great earth movement in these northern seas.

Through his energy funds were obtained to found the Technology Observatory Station at Kilauea, and a few years ago he went there to direct it.

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Have you a receipt for \$2 from the Alumni Association?

## Distinguished Russian Mining Engineer at Tech

Prof. Henry Tschetschott, of the St. Petersburg Mining Institute, has registered at the Institute for special work. His coming to the Institute is part of a general plan of the Government to educate Russians in the best places possible for positions as teachers in the home schools. Already there are at Technology two other Russians, Messrs. Penn and Ortin, who have likewise been sent by the Government.

Mr. Tschetschott is a native of St. Petersburg though of Polish extraction. He graduated in 1900 from the Mining Institute in that city with the degree, M.E., and since that time has been mining expert and is now full professor of mining engineering in the Institute. His degree entitles him to practice his profession and become superintendent of mines without special examination or license.

In answer to the question, why Technology is selected for the purpose of instruction rather than some one of the excellent schools on the Continent and nearer the home country, Mr. Tschetschott says plainly that the courses in America are broader. Each country has its special kinds of mining work, and the college courses follow these more or less closely. In the United States the expanse is so great that all kinds of work are included. The specialties that this Russian professor is taking up are among those for which Tech has been notable, including ore dressing and treatment of copper and gold. Ore dressing is a new department in Russia and yet a most important one, and American methods are the ones they need for the mines of the Lena district and Kamschatka, which resemble those of Alaska and the Yukon; while in the Ural and the operations along the edges of Mongolian deserts and those on the Turkestan border are paralleled by the work in the West where desert conditions also prevail.

Tech Night at the Opera House, Thursday, April 16.

## Albany Club Meets

The Technology Club of Albany and Schenectady had an interesting meeting at the Mohawk Golf Club, Schenectady, January 30.

Prof. W. J. Drisko, '95, of the Institute, was the guest of the club, and gave an illustrated lecture on the new Technology buildings. He also spoke on the co-operative arrangement between Technology and the Harvard Graduate Schools of Engineering. This arrangement was heartily endorsed by all present.

The following men attended: W. J. Drisko, '95; N. A. Lougee, '11; A. L. de Romana, '11; S. P. Kimball, '11; E. E. Kimball, '02; L. A. Hawkins, '99; E. A. Brainard, '97; K. A. Pauly, '96; N. J. Kingsbury, '02; E. W. Sargent, '07; B. H. Morash, '12; N. Sprague, Jr., '02; W. W. Ammen, '05; H. E. Dexter, '12; R. C. Robinson, '01; H. B. Chalmers, '00; W. R. Whitney, '90; E. S. Chase, '06; S. Thomson, '09; O. R. Clark, '89; R. Palmer, '04; W. C. Arsen, '01; H. B. C. Allison, '11; Warren Taylor, '02; A. R. McKim, '85; H. W. Chambers, '03; C. W. Draper, '07; Holmes; H. M. MacMaster, '00; M. M. Davis, '09; Walter Arthur, '11.

## Bequest for M. I. T.

The late Morrill Wyman of Cambridge, whose will was filed in the probate court last month, provides for \$50,000 to be given to Harvard University, to promote good citizenship by the study of republican government. There is a bequest of \$5,000 to the First Parish Church of Cambridge; \$10,000 to the Avon Home of Cambridge, and certain private bequests. One fourth of the residue of the estate is left to the Institute of Technology to be used in aiding deserving and promising students; another quarter goes to Cambridge University in memory of the testator's father, Dr. Morrill Wyman, and the remaining half of the residue goes to Harvard College to establish a memorial fund to be known as the Morrill Wyman Medical Research fund.



## ENTHUSIASTIC MEETING IN PHILADELPHIA

Thirty Tech students on a department trip, with their instructors, are entertained at annual dinner—Richard Waterman, '92, Dr. Godfrey, '90, W. H. King, '94, and John Ritchie, Jr., among the speakers

The reunion of the Technology Club at Philadelphia at Hotel Walton, Thursday evening, February 5, was a notable and enthusiastic affair. There were in attendance about sixty of the alumni resident in the city who had invited to the meeting the thirty visiting students of the electrical engineering party with their instructors, making the gathering one that quite filled the dining room. Richard Waterman, '92, president of the Philadelphia club, put into practice every means of making the guests at home, delegating at least one resident alumnus to look after each visitor. Tags with names and numbers served to introduce guests to the hosts, and the alumni entered heartily into the plan.

As an intercourse exercise, the president gracefully introduced Dr. Hollis Godfrey, '90, president of the Drexel Institute, who welcomed the visitors. In his brief speech Doctor Godfrey noted that there are five Tech graduates in important positions at the heads of divisions at the City Hall in Philadelphia, while another is municipal manager at Dayton, Ohio, with still another one for his head of the Public Works department in that city. From such straws Doctor Godfrey prophesied that it is the man of special education in technical matters who is to lead the world of the future. Prof. H. F. Thomson, leader of the party and representing the Faculty of the Institute, was the next speaker, calling attention to the fact that in the great industrial institutions which had been visited the company had found Tech men in high places. In behalf of the student body Harold B. Richmond, '14, president of the Electrical Engineering Society, spoke wittily for a few minutes, not neglecting to give a good-natured "side-swipe" in passing to the instructors and

thanking the Philadelphians for their splendid reception of the invaders. The sentiments of President Richmond were voiced by the other students at the close of the meeting when lusty Tech cheers, with "three Philadelphias" were given by the boys.

Songs from a special cardinal and gray booklet enlivened the evening. After the coffee had been served President Waterman introduced to the company William H. King, '94, assistant corporation counsel of New York City, president of The Technology Clubs Associated. The speaker outlined the important place that the alumni body, thanks to its associations in the great centers, is taking in Technology affairs. He noted the growth and importance of the group of alumni in New York where the local club has a thousand members and a club house of its own. "You are building up in Philadelphia," said Mr. King, "an association that will march shoulder to shoulder with others in the great cities."

Mr. King spoke of the great gathering to be of The Technology Clubs Associated in Chicago and passed to the consideration of the new movement of coöperation in engineering education between the Institute and Harvard University. He made it plain that the coöperation is not, as has been currently imagined, an absorption of any kind. Each institution is unchanged in name, management, control of courses, control of funds and rights to give degrees. Harvard has realized that Tech in its new buildings will be so thoroughly equipped that for certain engineering courses it would be a waste of funds to try to duplicate them. It has, therefore, chosen to give to the Institute the work of educating such of its students who wish to take these courses. They will study an experiment in Tech laboratories under an

enlarged Technology Faculty, which is to include the professors in the departments in question at Harvard. Technology furnishes the courses, the equipment and the plant, and Harvard on its part contributes liberally of the money in its possession for such work, including interest on the funds of the Lawrence Scientific School and a fair proportion of the income of the Gordon McKay endowment. The new equipment will then be better serving its purpose and will be educating more nearly its full capacity of students. One may realize that the movement is truly one of conservation of educational forces.

Following Mr. King came John Ritchie, Jr., chief of the news service of the Institute, who had made the trip with the students. He set forth the plans of the new buildings now under course of erection in Cambridge. The lantern slides failed to reach the city in time for use, and the illumination of the room from outside sources prevented the use of the reflectoscope, so that the talk was off-hand and without pictures. Mr. Ritchie spoke somewhat in detail of the plans, noted the unique method of preparation before the architect was named, whereby the engineering problems, space requirements and other important matters had been tentatively determined. He also outlined the present condition of the construction and spoke further with reference to some details of the co-operation.

The following men were present at the dinner in Philadelphia, February 5: Bancroft, Wilfred, '97; Bean, Walter R., '99; Bigelow, Charles H., '92; Bullens, Dennison K., '08; Crawford, Andrew W., '94; Currier, Warren F., '03; Daniels, Francis E., '08; Davis, Carleton E., '93; Eaton, William W., '97; Egan, Seymour J., '07; Foljambe, Eugene S., '01; Gale, Roy F., '07; Gifford, Ralph S., '05; Godfrey, Dr. Hollis W., '98; Hayes, Samuel LeR., '11; Hess, Harry C., '11; Howland, Fred W., '93; Johnson, Bertrand H., '98; Jones, Bradley, '10; Lees, S. C., Lyle, Col. David A., '84; McGowan, James, Jr., '08; Mason, William A., '75;

Matthews, J. L.; Maxfield, Daniel E., '00; Mears, Joseph A., '03; Miller, Lewis Arthur, '01; Newkirk, Walter M., '92; Perry, Hiram E., '92; Pierce, Edward E., '99; Pike, Clayton W., '89; Roberts, William L., '11; Schmidt, A. F., '83; Seyms, George Beach, '03; Shaw, Herbert G., '13; Smith, Xanthus R., '09; Spear, George M., '02; Tillson, Percy E., '06; Trask, Edgar Pierce, '99; Turnbull, Myrten J., '12; Vosbury, Winfred, '04; Walker, Hiram LeRoy, '05; Walsh, William J., '06; Weiler, Rudolph B., '08; White, Nathaniel A., '06; Whitney, Philip R., '02; Wiggins, E. W., '05; Willard, Charles F., '01; Woodbridge Richard C., '07; Witherton, C. P.; Waterman, Richard, '92.

### Interesting Photographs Wanted

The REVIEW would like to get interesting photographs—preferably those relating to the early days of the Institute. There are a great many of these in existence somewhere, and they ought to be preserved.

If those having photographs of this description will kindly send them to the editor of the REVIEW, they will be very carefully handled, and will be returned in the same condition that they are received.

We do not agree to publish every photograph that is sent to us, but we shall select those that are particularly suitable, keep them in good condition and return them promptly.

### A Tardy Acknowledgment

Proper acknowledgment has never been made for a check of one hundred dollars from W. G. Snow, secretary of the class of '88, which represents the proceeds on the sale of a special number of *The Tech* at the Potlatch in Mechanics Hall last June.

The publication in question was made to look as it appeared at the time when the class of '88 was at the Institute, and was filled with the news of the reunion, local hits and reminiscences.

## NEW HAMPSHIRE SHOWS UP STRONG

Good meeting in Concord last month—E. W. Rollins, '71, elected president—Prof. Russell, '00, Prof. Lewis, '05, Rev. Frank A. Powell and John Ritchie, Jr., speakers

The third annual banquet of the Technology Club of New Hampshire was held at the Eagle Hotel, Concord, on Thursday evening, February 19, President J. L. Arnott, '75, of Manchester, being toastmaster.

There were more than thirty graduates present. The company sent to E. W. Rollins, '71, a note of acceptance to his invitation to meet them at his farm at Dover, N. H., in the spring, and to President Maclaurin at the Chicago All-Technology meeting a note of hearty approval of the agreement of coöperation with Harvard University in engineering education.

E. W. Rollins, '71, was elected president for the ensuing year, with N. S. Bean, '94, for vice-president, and N. D. Davol, '06, for secretary-treasurer.

The first of the speakers was Prof. George E. Russell, '00, whose story was concerning the coöperating between Technology and Harvard and with intimate knowledge since his department of civil engineering is one of those which the new agreement affects. He made it very clear that neither college is absorbing the other, and that both remain entirely unchanged in name, right to dispose of property, right to confer degrees and other functions exercised by them. Harvard agrees to discontinue its engineering schools in four departments: civil and sanitary engineering, electrical engineering, mechanical engineering and mining and metallurgy. In these matters Harvard students will receive their instruction within the new Technology buildings in courses prescribed by the Technology Faculty. The President of the Institute will be the executive officer of the coöperative work.

"The object of this coöperation," said Prof. Russell, "which initiates a new practice for American colleges, is in the interests of better work and economy. The maintenance of two parallel schools in such costly lines of education within

the same city would be extravagant and disastrous competition, and it is a conservation of educational force that is effected by the agreement." Prof. Russell further said that if competition is deemed necessary, "there are great schools in the West, largely endowed by the states, that can satisfy any one who desires it."

After commenting on the added strength that the Harvard men will give to the enlarged Faculty, the speaker read the agreement commenting on the different articles.

Next, of the members of the Faculty of Technology, came Prof. W. K. Lewis, '05, whose subject was the relation of the Institute to education. "The function of education," he said, "is to develop in the student the power to do things. The schools, especially the grammar and high schools, and to some extent the higher institutions fail to do this, and this is shown by the fact that standing in school has little relationship to success in life. The reason that Technology has been so tremendously successful is that it has developed this capacity, and its graduates are able to do things."

Prof. Lewis looks forward to the time when cultural education shall follow similar principles.

Rev. Frank A. Powell of Manchester spoke gracefully on the uplift of man by education, and the president, Mr. Arnott, in an address filled with meat, called attention to the direful effects of the German so-called "efficiency." This makes of workmen merely machines and the all-round mechanic or workman is disappearing. There is pressing need of industrial reform, and Mr. Arnott suggested that M. I. T. should be able to analyze the situation and find an equitable system upon which to conduct business.

John Ritchie, Jr., brought to the Technology Club of New Hampshire the greet-



ings of President Maclaurin, President Whiting, and Mr. Litchfield, as well as a number of bits of gossip with reference to Technology affairs.

He spoke of the loss of Bursar F. H. Rand, who was well known to the members of the club, and a favorite with the alumni, and outlined the suggested memorial to take the form of an endowed fireplace, which, by its cheer, will continually remind the students and the Faculty of the notable characteristics of Mr. Rand.

He spoke about the suggested coöperation whereby Technology will be able, in a scientific way, to afford to the state advice and information of technical character. He mentioned also the need among Technology associations scattered over the country, of a better bond of union than now exists, and mentioned that a new office had been created—that of field manager—the purpose of which is to keep the associations in touch one with the others, and with the central school; and said further that Mr. I. W. Litchfield, '85, had been named field manager.

The meeting closed with a long M. I. T. in which guests and visitors were mentioned.

### Tech Alumnæ Meet

The Women's Association of the Massachusetts Institute of Technology held its annual business meeting and luncheon in the Margaret Cheney reading-room at the Institute January 3. Officers for the new year were elected and reports read by various committees. Following the luncheon there were speeches by the following guests: James P. Munroe, secretary of the Technology Corporation; Dr. William T. Sedgwick, who discussed the new course in sanitation; Professor Taylor, who described the progress being made on the new Institute buildings. Drawings showing the new buildings were hung in the reading-room.

The officers for the coming year are as follows: President, Miss Margaret E. Dodd; first vice-president, Miss Margaret Maltby; second vice-president, Miss Mabel Babcock; treasurer, Miss Annie

E. Allen; auditor, Miss Elvira Wood; recording secretary, Miss Emmeline Torrey; corresponding secretary, Mrs. Charles W. Sawyer, 41 Humphreys street, Dorchester; registration committee, Mrs. William Ewing and Miss Margaret C. Browley; nominating committee, Mrs. James Hancock, Miss Matilda Frazier and Miss Anna Gallup; executive committee, Miss Isabel Hyams, Mrs. Harry Tyler and Miss T. Maria Elliot.

### Reopening of the New York Club House

Notices will soon be sent out announcing the formal opening of the New York Technology Club House sometime during the latter part of April.

The ceremony will include a grand march of honor through the house, a dinner, and an auction sale of "pipe and bowl" hooks in the new stein room; the remainder of the evening will be spent in general jollification.

President Maclaurin has received an invitation to be one of the guests of the club, and it is expected that a considerable number of Boston alumni will go on to give the New York club a good send-off.

The additions to the club house were described in the January REVIEW. In the April number will be plans, which give a good idea of the new facilities that are offered to the members of the club. These improvements will draw to the club a large number of out-of-town men who go to New York occasionally, and they will find here everything necessary for their comfort.

The enlarged club house marks the beginning of a new era in the life of the club, which now has a membership of about 1,000, and it has recently begun a campaign to add another 500 names on the roll.

In view of the uninterrupted success of the organization the accomplishment of this end seems to be inevitable.

Tech men stopping in New York should not fail to attend the reopening ceremonies of the club.

## ANNUAL BONSPEIL IN NEW BEDFORD

"Tommy" Pope the guest of honor—Everett Morss, '85, indulges in some Institute history and tells in detail of the coöperative agreement with Harvard

It's always wintry weather when the New Bedford Technology fellows get together at the Country Club, and January 16, when the ninth annual dinner of the Club was held, there was snow in the air, but not so much as on one memorable occasion when the club had President Maclaurin as its guest.

But the Technology spirit was manifested in overcoming obstacles, for the recent sample of north pole weather put the heating apparatus at the club out of commission, and there were brilliant prospects for a chilly reception for Prof. Thomas E. Pope, '71, who for thirty years or so met every freshman at the Institute and imparted the foundation of general chemistry, and Everett Morss, of the famous class of '85, a member of the Corporation.

There was a moving picture show, better than that, moving and talking. Richard D. Chase, '92, the secretary, read the records of several previous meetings, while three reels of carefully selected and appropriate pictures were thrown on the screen, with James A. Stetson, '99, as operator. The vaudeville between the reels consisted of performances by the members crowding to the bar.

The welcome Tech cheer was just a preparation for beefsteak and onions, and those who responded to the rising toast to Technology, proposed by President Benjamin C. Tripp, '97, were Thomas E. Pope, '71, Everett Morss, '85, Walter S. Allen, '79, Charles F. Lawton, '77, Theodore F. Tillinghast, '70, Christopher M. Church, '75, Dr. Charles R. Hunt, H. H. Swift, Jr., '92, Charles L. Faunce, '88, James A. Stetson, '99, Albert R. Pierce, '91, E. Norris Milliken, '98, Richard D. Chase, '92, C. F. Wing, Jr., '99, Frederic E. Earle, '06, L. D. Chapman, '09, Philip E. Young, '09, Edward H. Wing, '07,

Rodolphus A. Swan, '97, Ira M. Chace, Jr., '98, Alexander Hicks, '06, E. H. Steele, F. R. Peabody, '96, David W. Beaman, '96, Thomas B. Akin, Savory C. Hathaway, '88, J. Warren Braley, '89, W. N. Charles, '00, George H. Nye, '85.

The music which was canned, from Wing's included "The Stein Song," which is the Tech song, and "Brown October Ale," both of which gave the glee club its opportunity.

President Tripp introduced as the first speaker, Doctor Pope, who was born in this city and after his early education here, went to Harvard, where he prepared for a long service at Technology teaching chemistry.

"Tommy" Pope was the name the freshmen gave him and he did not resent it then or now. He told the New Bedford Tech men, many of whom were students while he was active at the Institute, that he considered the success of Technology and the present influence of the school is largely due to the graduates, by whose work M. I. T. is known even more than on account of its Faculty.

"Because Tech men are so successful," he said, "M. I. T. is judged by the men it has turned out, and the present position of the Institute in the world at large, which knows little of what is going on at the school, is almost entirely due to the success of its graduates and former students."

He referred to the fact that as he had been associated with the freshmen classes so long that he had come to be known as a perpetual freshman, and the name that the students gave him implied that he had never grown old.

He spoke of the new Technology and some of the plans for making the institution more notable in the educational world. He said that Tech is not proposing to teach only, but

to lead the world in research work, and the inspiration to research work is going to make the new Technology the most famous educational force in the world. He pointed out that an athlete never fears competition, and he hoped some strong school would be developed to push Technology to break its own record.

Everett Morss, '85, a member of the Corporation and of the committee that helped to engineer the alliance with Harvard, recently announced, related some of the site history that was news to the members of the club.

He also discussed the old and the new merger propositions, and the successful culmination of the recent negotiations. He considered the merger with Harvard in the engineering courses to mean greater efficiency and a better school, in line with the spirit of the times, because of strength gained through alliance of similar forces.

Mr. Morss pointed out that under the terms of the agreement, Technology unquestionably gains many important advantages. "I think we should take off our hats to Harvard," he said, "I believe that the college will also gain by it in the end." Mr. Morss was convinced that the result of the agreement would be the production of a school of engineering that will be unequalled in the world.

Mr. Morss referred also to the proceedings to register title to the property occupied by the Massachusetts Institute of Technology, fronting on Boylston street. Judge Davis of the land court recently decided that the Institute was owner in fee of the land, but held it, however, subject to certain equitable restrictions imposed for the benefit of owners of property fronting on surrounding streets, which were to the effect that the open space should be maintained, and not more than one third of the land should be covered by buildings.

The Institute desires to sell the property when its new buildings in Cambridge are completed. Under an act of 1903 the Commonwealth re-

leased its rights to the Institute, but provided that no stable or building for mercantile or manufacturing purposes should be erected on the property.

The court says that if all who have any title or interest in the land join in a deed it can be conveyed subject to the terms of the acts of 1913. The assessed value of this land is \$1,800,000 and the Corporation desires to sell when its new buildings at Cambridge are completed.

Walter S. Allen, one of the older members of the Technology club of New Bedford, who entered the Institute in 1875, and was one of a class of 23 that was graduated, told some interesting reminiscences of the affairs when he was a student. He was also an instructor in chemistry at the Institute after he received his degree, and he worked with Doctor Pope for several years.

The committee that planned the evening's events and saw them through to a successful finish, included B. C. Tripp, '97, president; Richard D. Chase, '92, secretary and treasurer; C. F. Wing, Jr., '99, member of the executive committee, and Ira M. Chace, Jr., '98, Charles F. Lawton, '77, James A. Stetson, '99, and Rodolphus A. Swan, '98.—*New Bedford Mercury*.

### Tech Interests in Bridgeport

The alumni of Bridgeport, Conn., have recently held their second dinner, having in view the formation of an alumni association in that city. The last meeting, which was held on February 6, was an enthusiastic one, and plans for the furtherance of the association were discussed, and it was decided to hold another meeting for the purpose of making a permanent organization on April 16.

Those present were: Halsey R. Philbrick, '06; J. A. McElroy '08; Philip W. Dalrymple, '12; James A. Tillinghast, '12; Max L. Waterman, '13; H. L. Stone, '14.

## Harvard-Tech Dinner

At the regular monthly dinner of the Boston Harvard Club on March 2, the agreement between Harvard and the Institute of Technology was discussed by President Lowell of Harvard, President Maclaurin of Technology, and Professor Sabine of the Harvard Graduate School of Engineering.

Through the courtesy of members of the club a very large sprinkling of Tech men were invited to the dinner—probably a quarter of those present represented the Institute; while at the head table were the past-presidents of the Institute, James P. Monroe, '82; Everett Morss, '85; Edwin S. Webster, '88. The president of the Alumni Association, Jasper Whiting, '89, sat at the left of President Lowell. Other Technology men at the head table were Arthur D. Little, '85, and Charles A. Stone, '88.

The dinner was held in the large dining-room of the club, and there were about 250 present.

President Maclaurin explained the agreement with special reference to its relations with the work of the Institute of Technology, going considerably into detail. He was received with great cordiality, being greeted by the Harvard "Three times three," followed by three Maclaurins.

President Lowell of Harvard referred to the arrangement as the best for the Institute, the best for the University, and the best for the community which the two serve in common. He said that it has been asked whether the University is "playing fair" with the Gordon McKay bequest in making this alliance with the Institute. In his opinion Mr. McKay's declining to give money to Technology meant nothing but that he preferred to give it to Harvard, and it was his own belief that the University was more nearly carrying out the intention of Mr. McKay than it had done since the gift came into its hands. Replying to a question as to what Harvard gains through the alliance, he said, "Our gain measured by any standard is just what we contribute to the public service. Institutional selfishness

is doing more harm to the country than individual selfishness—be it a combination of capital or labor."

A brief address was made by Odin B. Roberts, '88, a graduate of both Harvard and Technology, and vice-president of the Harvard Club.

Major Higginson presided as toastmaster, and the Glee Club enlivened the evening with songs.

## Progress on the Buildings

Work on the new buildings in Cambridge has been delayed by the extremely unfavorable weather conditions during February; but with the advent of warmer weather operations are going forward in earnest.

With the exception of the pavilions and the units housing the Departments of Architecture, Physics, Electrical Engineering and the Library, the structural plans have now been developed sufficiently to permit of consistent progress being made in construction work. Plans for the heating, ventilating and plumbing systems are progressing satisfactorily, and the equipment layouts are being worked out just as fast as information will permit.

Scale details and specifications for the stone work have been received from the architect, and are being forwarded to the various stone contractors.

Up to the present time 4,300 piles have been driven for foundation. The Boston & Albany Railroad Company has completed the construction of a 6,000-foot spur track on the site, and has turned it over to the Stone & Webster Engineering Corporation for service.

## Death of William L. Adams

William L. Adams, '92, the western representative of the Aberfoyle Manufacturing Company of New York, with headquarters at 746 Insurance Exchange at Chicago, died just before Christmas.

Mr. Adams was widely known in the textile trade, having been formerly representative in that territory for many years, for the Hampton Company, East Hampton, Mass.



## Studying Merchandise Delivery

Following Theodore N. Vail's repeated expression that business firms do well to endow scientific research, a prominent New York department store, R. H. Macy and Company, has contributed largely for an investigation to be conducted by the Massachusetts Institute of Technology. The object of the investigation will be the determination of the general economic laws underlying the operation of the delivery service of a large retail department store. The study will be conducted by Technology's Electrical Research Division, and the observations will be made upon the delivery system of the Macy store.

There are few who realize that the delivery department of a store as large as Macy's constitutes in itself a business enterprise of large proportions. One can better understand this when he considers that in New York the goods purchased at Thirty-fifth Street are distributed without charge to the customer everywhere between Stamford, Conn., and Seabright, N. J., or over an area equal to about one third of the whole of Massachusetts. To provide for quick deliveries throughout such a large area, there has grown up a system of operating depots in the several delivery zones. Packages are transferred in large vans from the store to the depots, whence they are distributed to the customers. In case of the Macy company, this system means the employment of approximately 400 vehicles including horse, electric and gasoline wagons with the attendant small army of men. The total expense of the company's delivery system is upwards of a million dollars a year.

A saving of one tenth of a cent on each delivery means much in a system of this size. Armed with the experience that the research division has already gained in its study of motor trucking in Boston and other cities, a special staff of research assistants is to study the methods employed at the store to determine the character of the deliv-

eries, the zones and distances, the speeds, loading, running and standing times of the wagons, etc. Special attention will be paid to the expense caused by the delay of the delivery wagons in congested traffic, in waiting for ferries, and in making individual deliveries to the several suites in apartment houses, for it is not customary in New York for the office of an apartment building to receive goods for the tenants.

The study of New York delivery conditions has already begun and it requires a staff of three men to complete the survey by midsummer. One of the considerations involved in undertaking the study is that the work will be pushed with all proper speed.

The first of the studies of the research division upon the operation of delivery vehicles was undertaken at the initiation and support of President Edgar of the Edison Electric Illuminating Company of Boston. A paper giving the final results of this investigation will be delivered on the invitation of the Electric Vehicle Association of America at the association's meeting in New York on February 17.

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## A Representative Member

In the initial number of the Engineering Record for 1914 are a number of special articles on advances during the year in various features of engineering. Nearly one half of the contributors are Tech men. Among them are Allen Hazen, '88, who has an article on "The Progress in Water Supply"; George W. Fuller, '90, "Advances in Sewage Disposal"; Sanford E. Thompson, "Concrete and Reinforced Concrete in 1913"; W. D. Sohler, '78, "Tendencies in Highway Development"; Samuel A. Greeley, '06, "Refuse Disposal of Street Cleaning"; Lawrence B. Manly, '92, "Boylston Street Subway in Boston." In addition to these there is an abstract of an address by Leonard C. Wason, '91, president of the Aberthaw Construction Company, on the "Problems of the Contractor."

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